SyncMaster 323T / SyncMaster 403T

Natural Color

MDC System

INDEX

- Main Page
- Safety Instructions
  - Notational
  - Power
  - Installation
  - Cleaning
  - Other
- Introduction
  - Unpacking
  - Front
  - Rear
  - Remote Control
  - Mechanical Lay-out
- Setup
  - Installing Stand Kit
  - Connecting Your Monitor
  - Multiple Display Control (MDC)
- Adjusting Your LCD Monitor
  - User control buttons
  - OSD Functions
- Troubleshooting
  - Check before Calling for Service
  - Problems and Solutions
  - Q & A
- Specifications
  - General Specifications
  - PowerSaver
  - Preset Timing Modes
- Information
  - Service Center
  - Terms
  - Regulatory
  - Natural Color
  - For Better Display
  - Authority

Notational

Please read the following safety instructions as they are designed to prevent damage to property and harm to the user.

Warning / Caution

Failure to follow directions noted by this symbol could result in bodily harm or damage to equipment.

Notational Conventions

Prohibited

Important to read and understand at all times

Do not disassemble

Disconnect the plug from the outlet

Do not touch

Grounding to prevent an electric shock

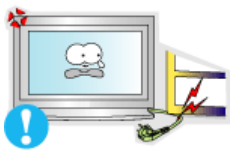
Power

When not used for extended periods of time, set your PC to DPMS. If using a screen saver, set it to the active screen mode.

- **Do not use a damaged or loose plug.**
  - This may cause an electric shock or fire.

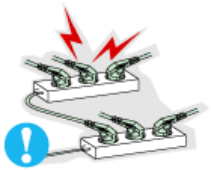
- **Do not pull the plug out by the wire nor touch the plug with wet hands.**
  - This may cause an electric shock or fire.

- **Use only a properly grounded plug and receptacle.**
  - An improper ground may cause electric shock or equipment damage.



- **Do not excessively bend the plug and wire nor place heavy objects upon them, which could cause damage.**
  - This may cause an electric shock or fire.

- **Disconnect the plug from the outlet during storms or lightening or if it is not used for a long period of time.**
  - Failure to do so may cause an electric shock or fire.



- **Do not connect too many extension cords or plugs to an outlet.**
  - This may cause a fire.

Installation

Do not cover the vents on the monitor cabinet.

- Bad ventilation may cause a breakdown or fire.

Put your monitor in a location with low humidity and a minimum of dust.

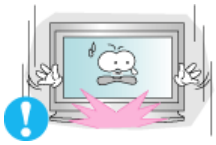
- An electric shock or fire could result inside the monitor.

Do not drop the monitor when moving it.

- This may cause damage to the product or human body.

Place the monitor on a flat and stable surface.

- The monitor can cause injury by falling.



Set down the monitor carefully.

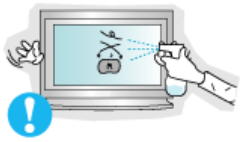
- It could be damaged or broken.

Do not place the monitor face down.

- The TFT-LCD surface may be damaged.

Cleaning

When cleaning the monitor case or the surface of the TFT-LCD, wipe with a slightly moistened, soft fabric.



Do not spray detergent directly on the monitor.

Use the recommended detergent with a smooth cloth.

If the connector between the plug and the pin is dusty or dirty, clean it properly with a dry cloth.

- A dirty connector can cause an electric shock or fire.

Do not set a glass of water, chemicals or any small metal objects on the monitor.

- This may cause damage, electric shock or a fire.
- If a foreign substance gets into the monitor, disconnect the plug and then contact a service center.

Other

Do not remove cover(or back). No user serviceable parts inside.

- This may cause an electric shock or a fire.
- Refer servicing to qualified service personnel.

If your monitor does not operate normally - in particular, if there are any unusual sounds or smells coming from it - unplug it immediately and contact an authorized dealer or service.

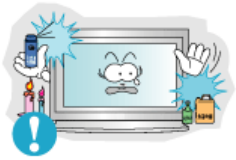
- This may cause an electric shock or fire.

Do not place any heavy objects on the monitor.

- This may cause an electric shock or a fire.

For each hour of looking at the monitor, you should let your eyes rest for 5 minutes.

- This will reduce eye fatigue.

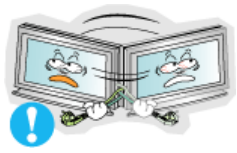


Do not use or store inflammable substances near the monitor.

- This may cause an explosion or fire.

Do not try to move the monitor by pulling on the wire or the signal cable.

- This may cause a breakdown, electric shock or a fire due to damage to the cable.

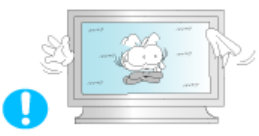


Do not move the monitor right or left by pulling only the wire or the signal cable.

- This may cause a breakdown, electric shock or a fire due to damage to the cable.

Never insert anything metallic into the monitor openings.

- This may cause an electric shock, fire or injury.



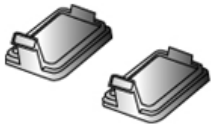
If you view a fixed screen for an extended period of time, residual image or blurriness may appear.

- Change the mode to energy save or set a screensaver to moving picture when you need to be away from the monitor for an extended period of time.

Unpacking

Please make sure the following items are included with your monitor. If any items are missing, contact your dealer.

Power Cord



Cover-hole

Signal Cable
(15 pin D-Sub)

Remote Control /
Batteries (AAA X 2)

Monitor

BNC to RCA
Adaptorjack

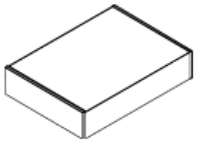
RS232C CABLE

User's Guide CD

Warranty Card
(Not available in all locations)

Temporary Stand

Sold separately



Wall Mount KIT

Speaker Set

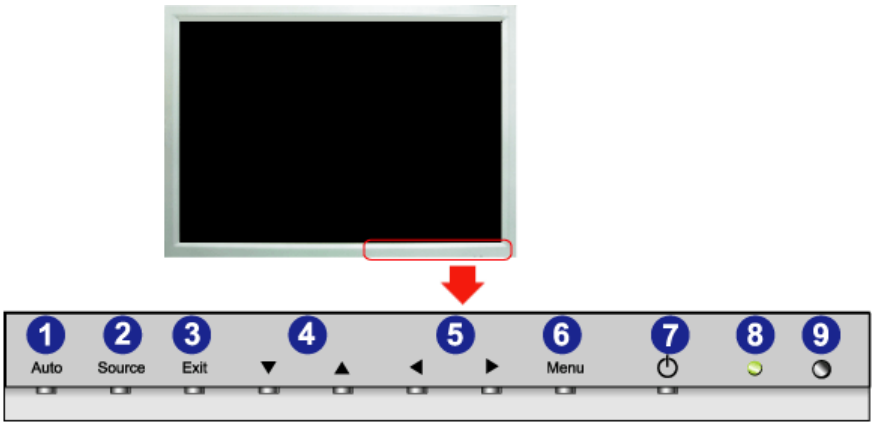
Stand Kit

PIVOT Installation CD

Contact a local Samsung Electronics service center to buy optional items.

Front

For detailed information concerning the monitor functions, refer to User Controls under Adjusting Your Monitor. The monitor's front configuration may vary slightly depending on the monitor model.

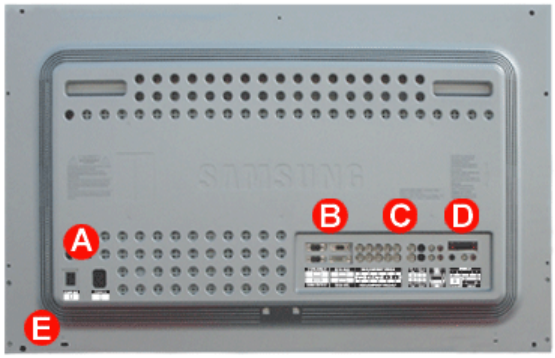


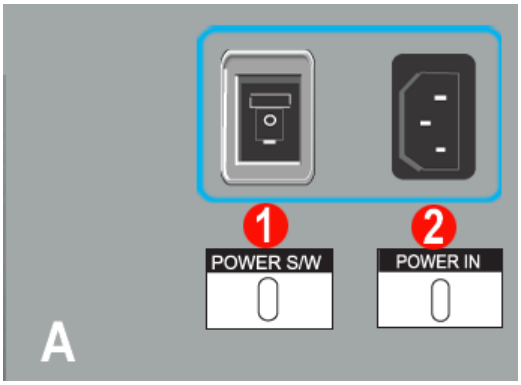
1. **Auto button**
2. **Source button**
3. **Exit button**
4. **Navigate button (Up-Down Button)**
5. **Adjust button (Left-Right Button) / Volume button**
6. **Menu button**
7. **Power button**
8. **Power indicator**
9. **Remote Control Sensor**

Rear

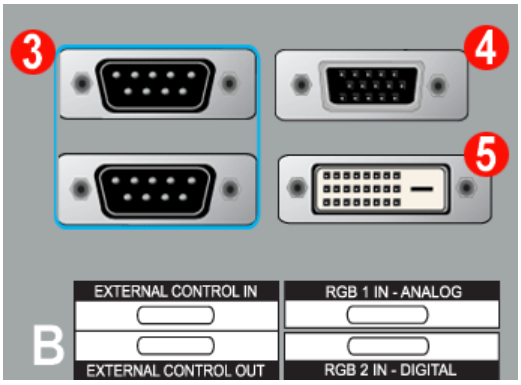
SyncMaster 403T

For detailed information concerning cable connections, refer to Connecting Cables under Setup.
The monitor's rear configuration may vary slightly depending on the monitor model.



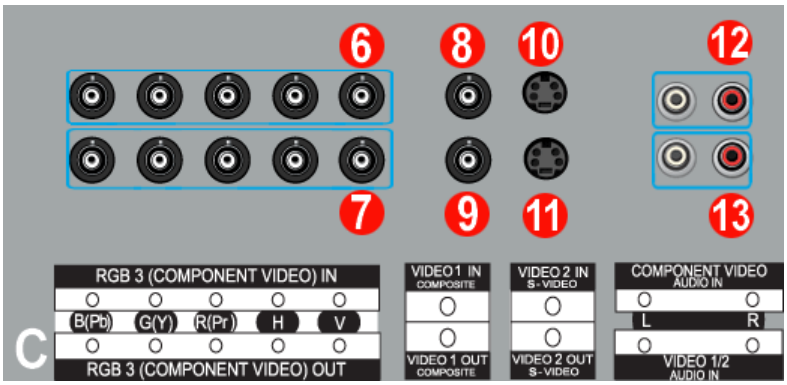


1. **Power On/Off Switch**
2. **Power port**



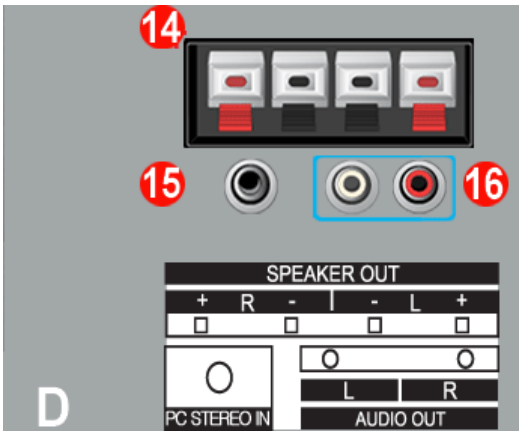
3. **EXTERNAL CONTROL (RS232C Serial PORT) :** MDC(Multiple Device Control) Program Port
4. **PC Video Connection Terminal**
   : Using D-Sub Cable (15 pin D-Sub) - RGB 1 mode (Analog PC)
5. **PC Video Connection Terminal**
   : Using DVI Cable (DVI-D to DVI-D) - RGB 2 mode (Digital PC)

Rear

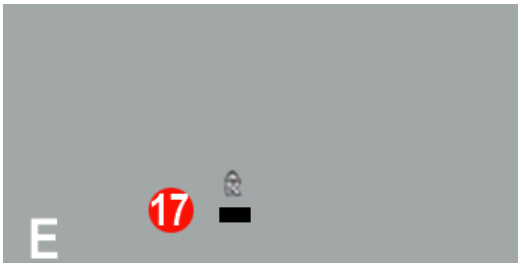


6. **PC Video Connection Terminal / Component Connection Terminal : BNC cable (Input)**
   - RGB 3 (Analog PC) Connection : connecting B, G, R, H, V port
   - Component Connection : connecting Pb, Y, Pr port
7. **PC Video Loopout Connection Terminal (RGB 3 (Analog PC)) / Component Loopout Connection Terminal (Component) - BNC cable(Output)**
8. **CVBS Video Connection Terminal : Video 1 mode (Input)**
9. **CVBS Video Loopout Connection Terminal (Output)**
10. **S-Video Connection Terminal : Video 2 mode (Input)**
11. **S-Video Loopout Connection Terminal (Output)**
12. **Component Audio Connection Terminal (Input)**
    : When the input signal is connected to Terminal 6, the audio must be connect to this terminal only.
13. **CVBS, S-Video Audio Connection Terminal (Input)**
    : When the input signal is connected to Terminal 8 or 10, the audio must be connect to this terminal only.

Loopout Connection : Up to 5 monitors supported.



14. **Speaker Out**
15. **PC Stereo Connection Terminal (Input)**
16. **Audio Line-out Connection Terminal (Output)**

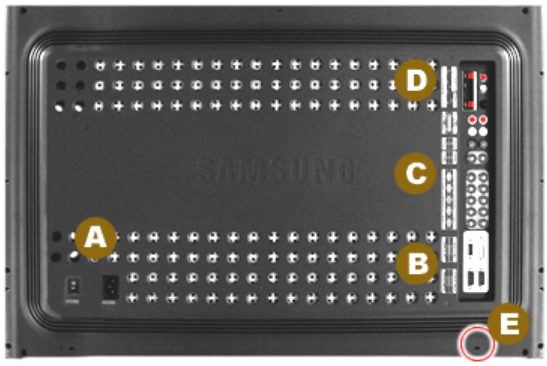


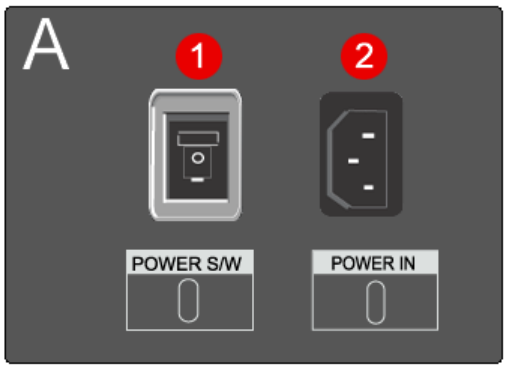
17. **Kensington Lock**

Rear

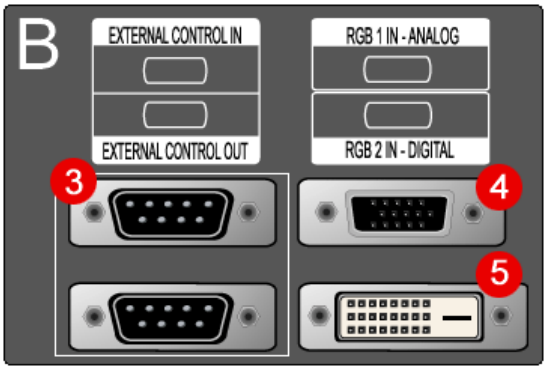
SyncMaster 323T

For detailed information concerning cable connections, refer to Connecting Cables under Setup.
The monitor's rear configuration may vary slightly depending on the monitor model.



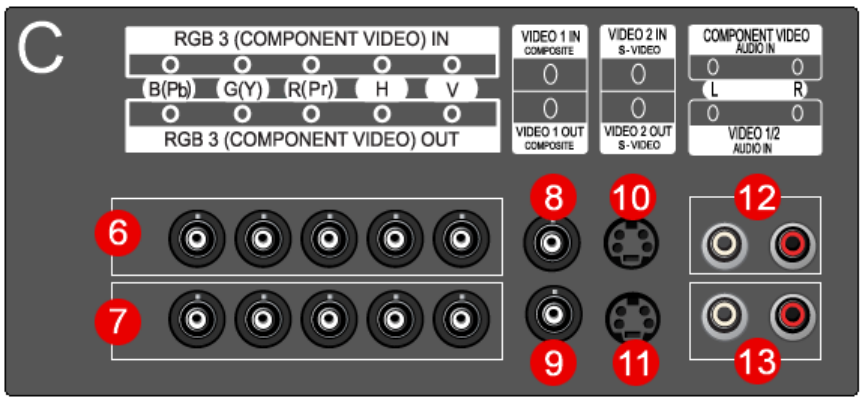


1. **Power On/Off Switch**
2. **Power port**



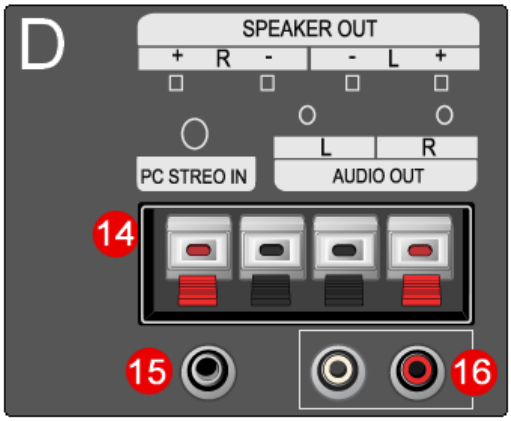
3. **EXTERNAL CONTROL (RS232C Serial PORT) :** MDC(Multiple Device Control) Program Port
4. **PC Video Connection Terminal**
   : Using D-Sub Cable (15 pin D-Sub) - RGB 1 mode (Analog PC)
5. **PC Video Connection Terminal**
   : Using DVI Cable (DVI-D to DVI-D) - RGB 2 mode (Digital PC)

Rear



6. **PC Video Connection Terminal / Component Connection Terminal : BNC cable (Input)**
   - RGB 3 (Analog PC) Connection : connecting B, G, R, H, V port
   - Component Connection : connecting Pb, Y, Pr port
7. **PC Video Loopout Connection Terminal (RGB 3 (Analog PC)) / Component Loopout Connection Terminal (Component) - BNC cable(Output)**
8. **CVBS Video Connection Terminal : Video 1 mode (Input)**
9. **CVBS Video Loopout Connection Terminal (Output)**
10. **S-Video Connection Terminal : Video 2 mode (Input)**
11. **S-Video Loopout Connection Terminal (Output)**
12. **Component Audio Connection Terminal (Input)**
    : When the input signal is connected to Terminal 6, the audio must be connect to this terminal only.
13. **CVBS, S-Video Audio Connection Terminal (Input)**
    : When the input signal is connected to Terminal 8 or 10, the audio must be connect to this terminal only.

Loopout Connection : Up to 5 monitors supported.



14. **Speaker Out**
15. **PC Stereo Connection Terminal (Input)**
16. **Audio Line-out Connection Terminal (Output)**

17. **Kensington Lock**

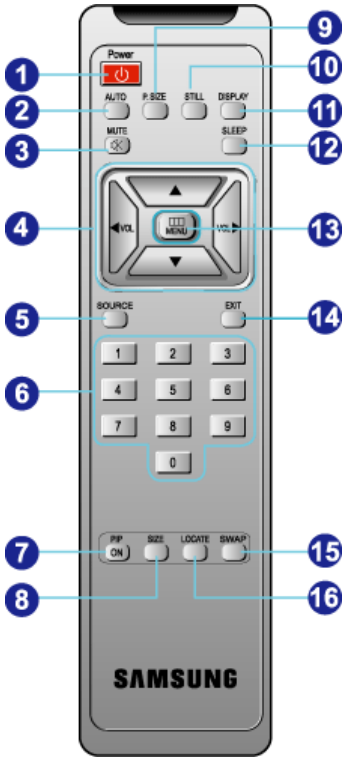
Remote Control

For detailed information of the Remote Control Unit functions, refer to Adjusting Your Monitor > User Controls > User Control Buttons > Remote Control buttons.
The remote control's configuration may vary slightly depending on the monitor model.

The Remote control may function within a range of 0.23 to 33 feet (7cm to 10m) and 30 degrees to the left and right of the monitor's Remote Control Reception sensor.

Button Names | Replacing Batteries | Usage

1. Button Names



1. **Power button**
2. **Auto button**
3. **Mute button**
4. **VOL(Volume)and Up/Down buttons**
5. **Source button**
6. **Number buttons**
7. **PIP button**
8. **PIP Size button**
9. **P.Size button**
10. **Still button**
11. **Display button**
12. **Sleep button**
13. **Menu button**
14. **Exit button**
15. **Swap button**
16. **Location button**

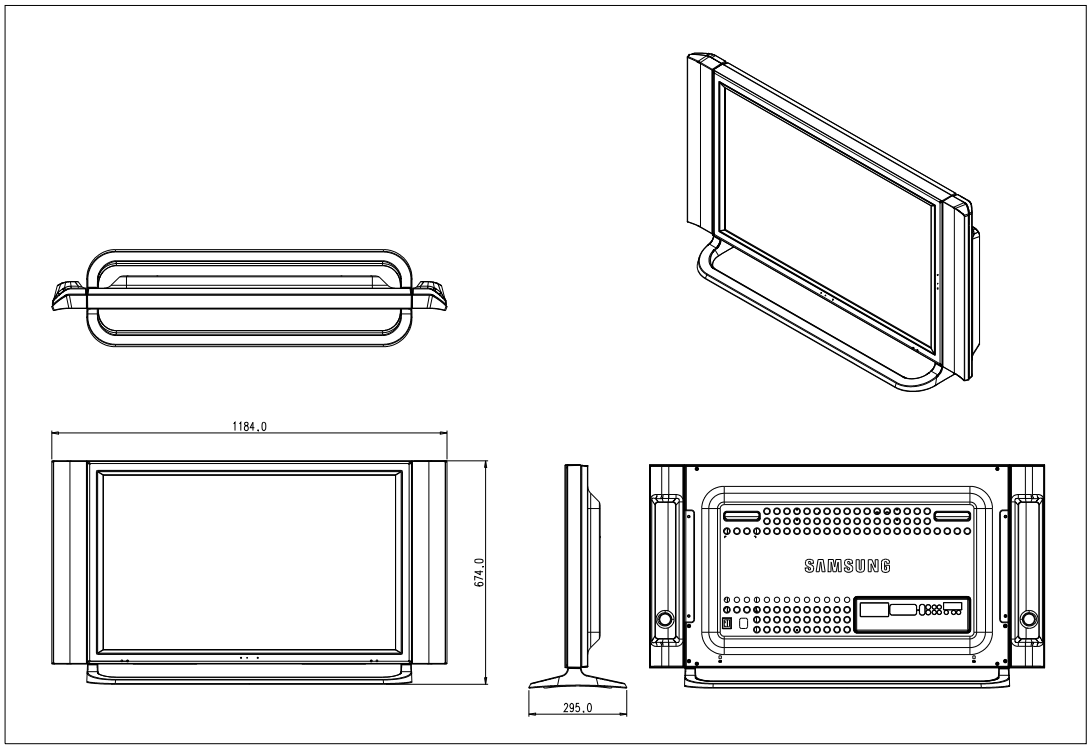
2. Replacing Batteries

1. Slide out the cover pressing part marked .
2. Insert the batteries matching their polarities (+, -).
3. Slide in the cover.

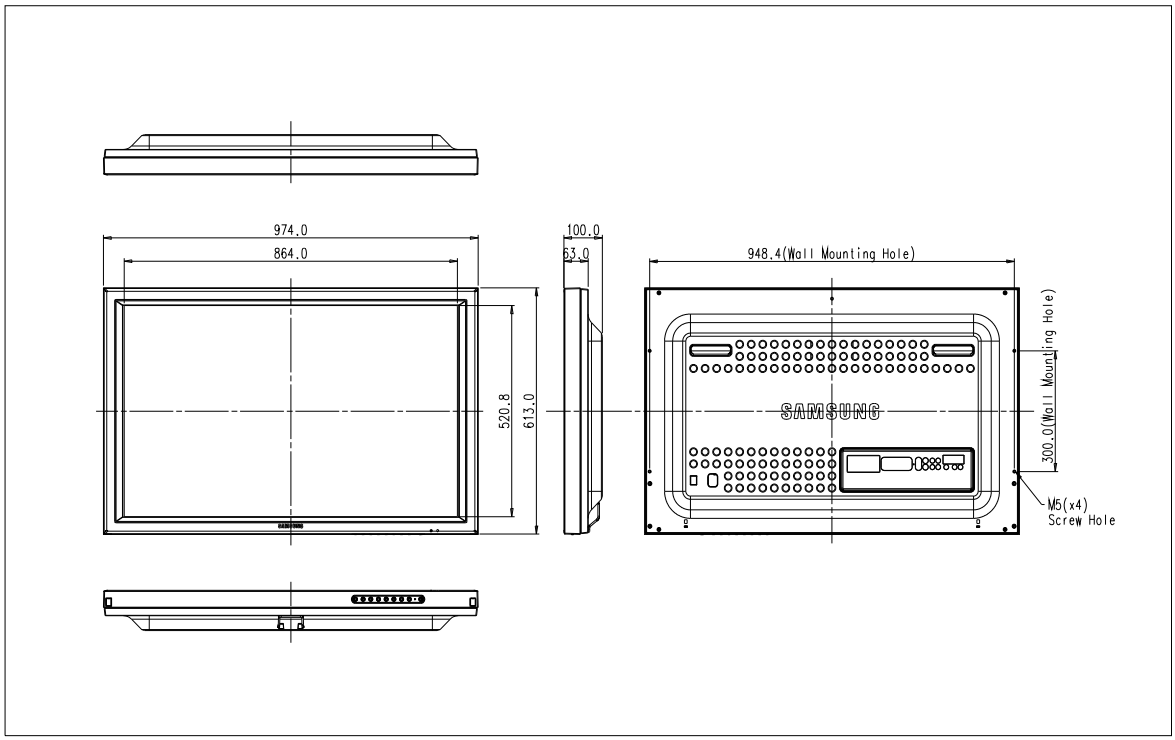
Mechanical Lay-out

SyncMaster 403T

1. Mechanical Lay-out

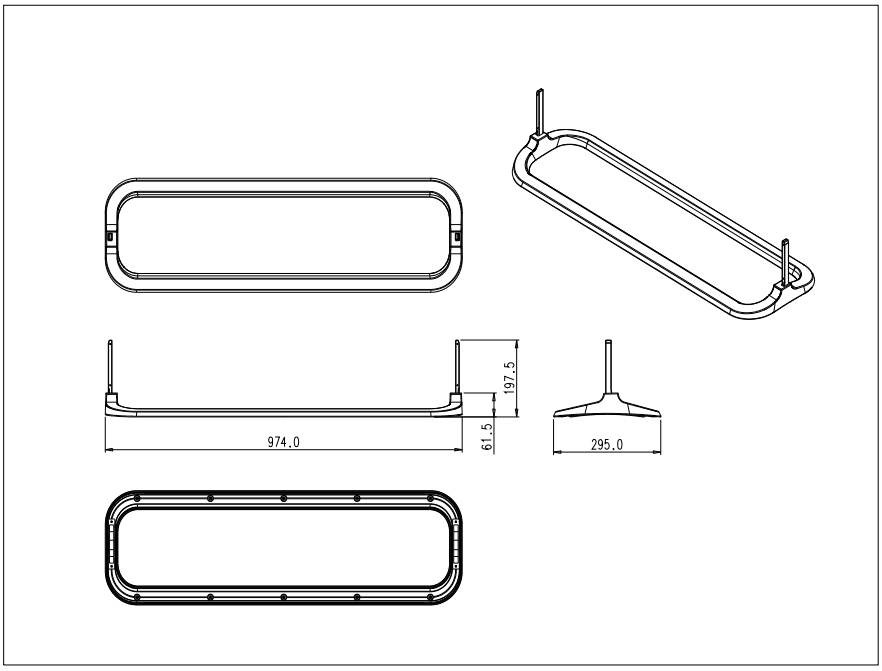


2. Monitor Head

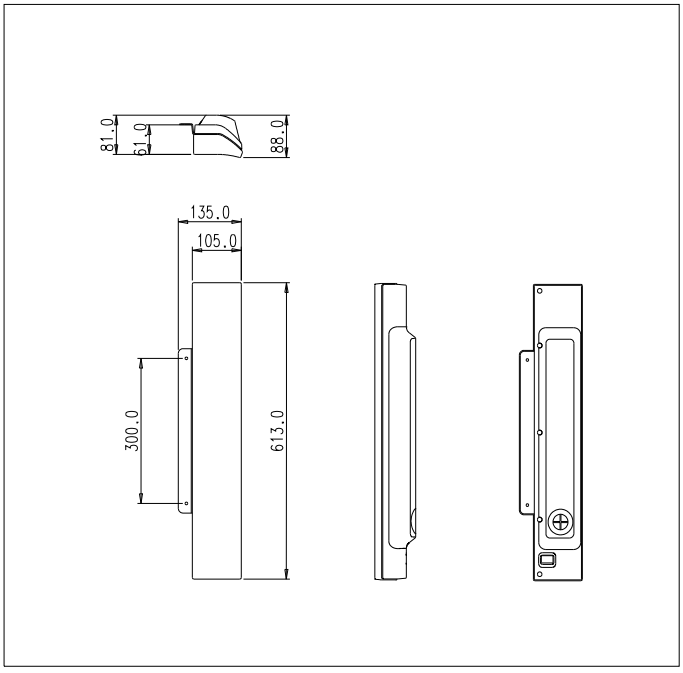


Mechanical Lay-out

3. Stand

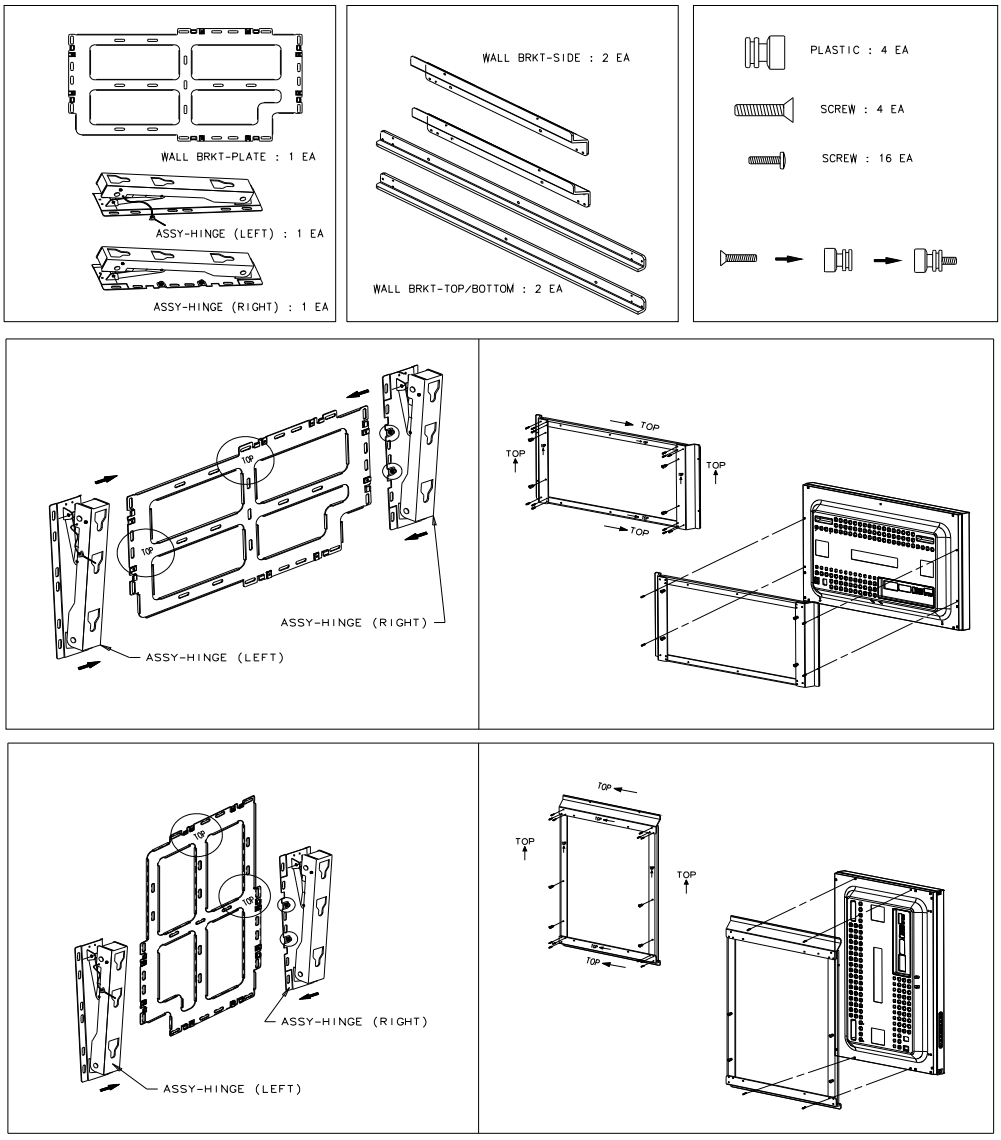


4. Speaker



Mechanical Lay-out

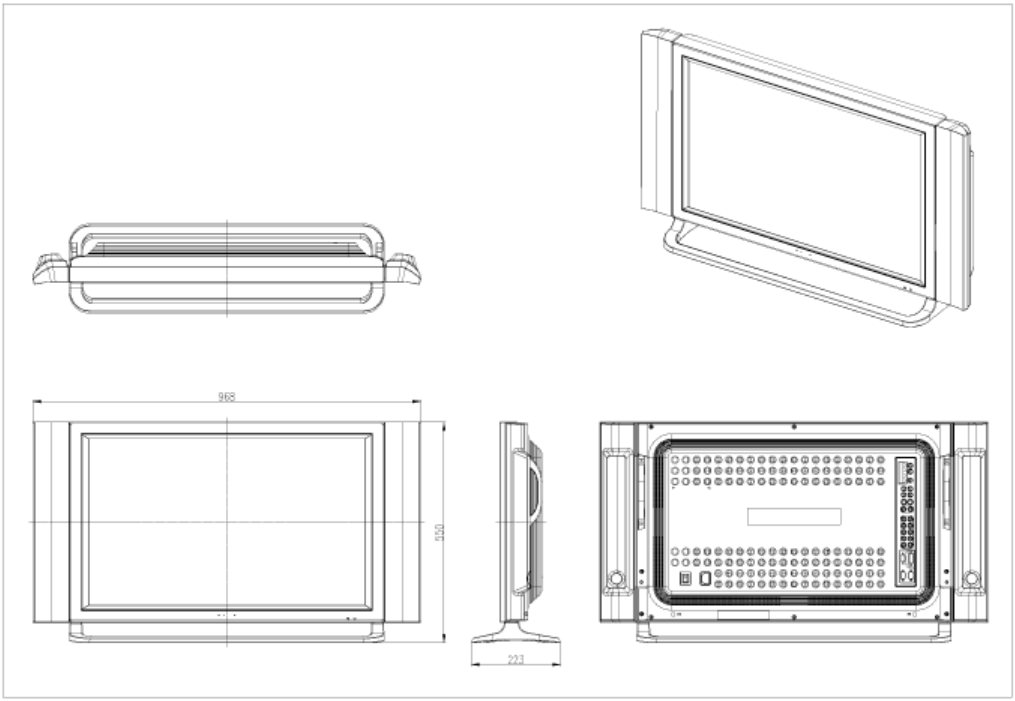
5. Mounting Bracket



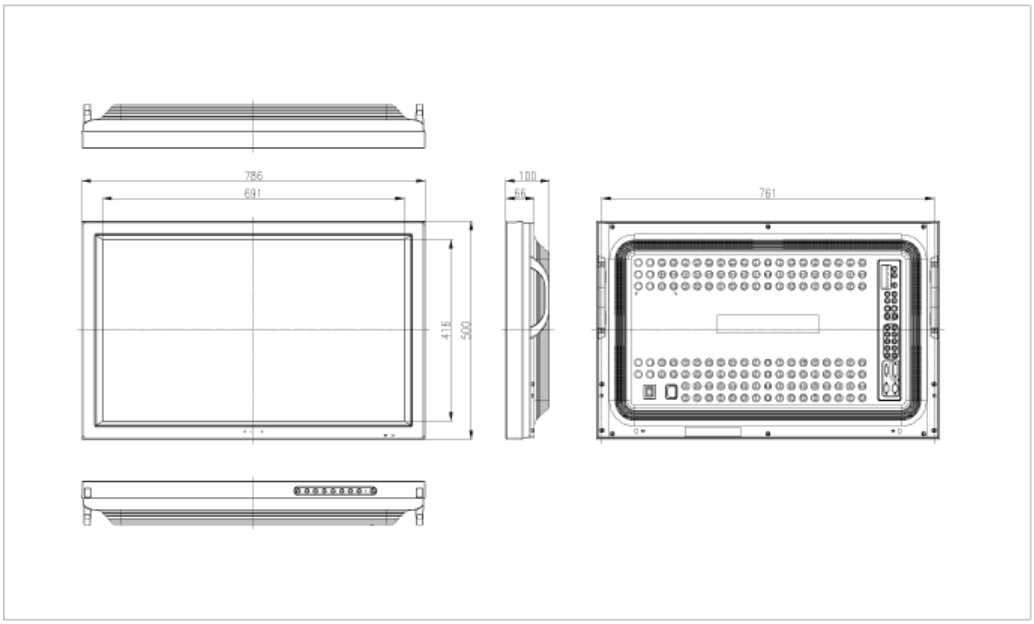
Mechanical Lay-out

SyncMaster 323T

1. Mechanical Lay-out

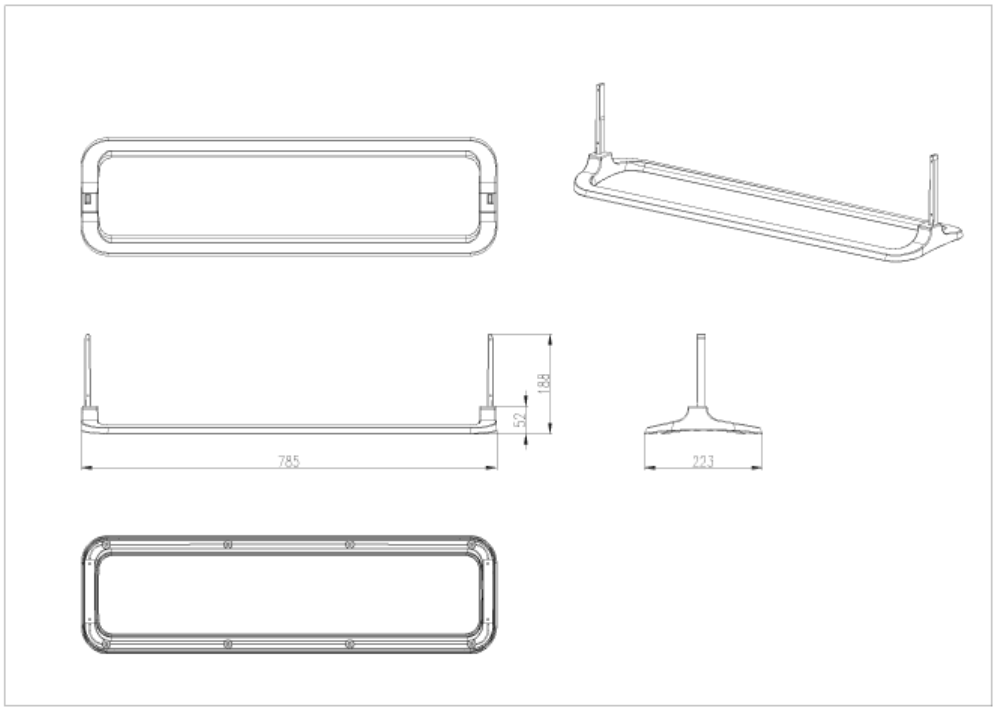


2. Monitor Head

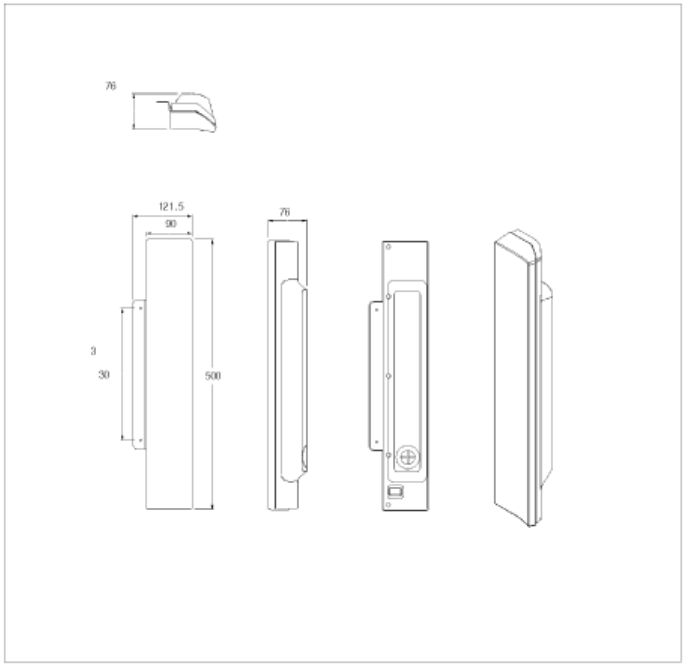


Mechanical Lay-out

3. Stand

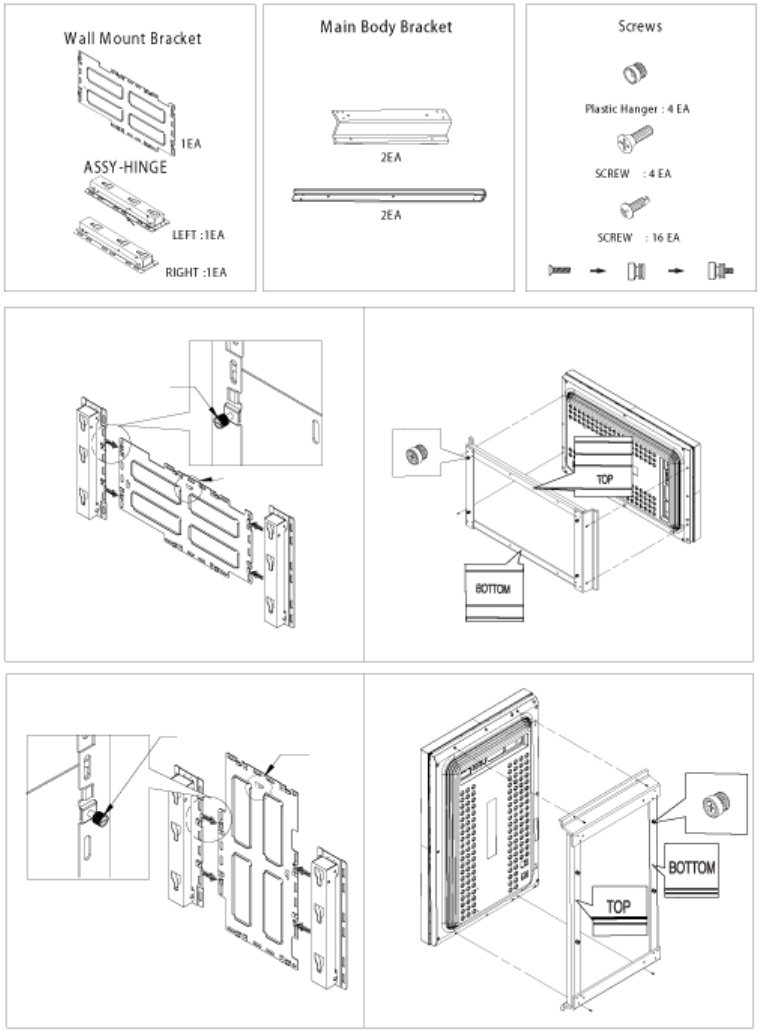


4. Speaker



Mechanical Lay-out

5. Mounting Bracket

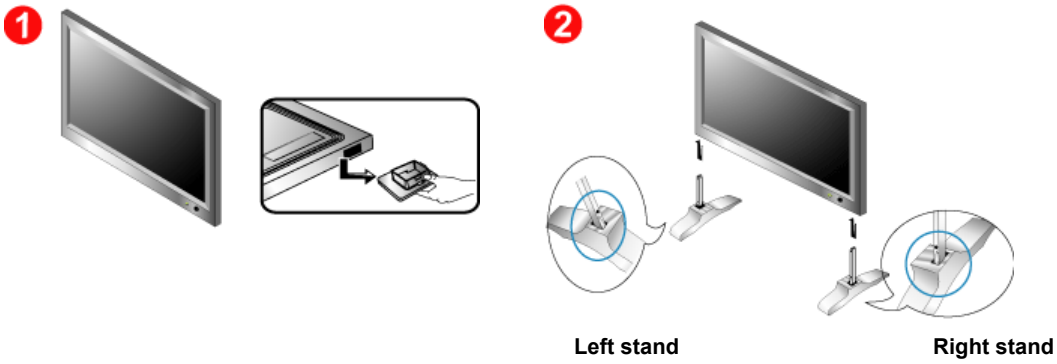


Installing Stand Kit

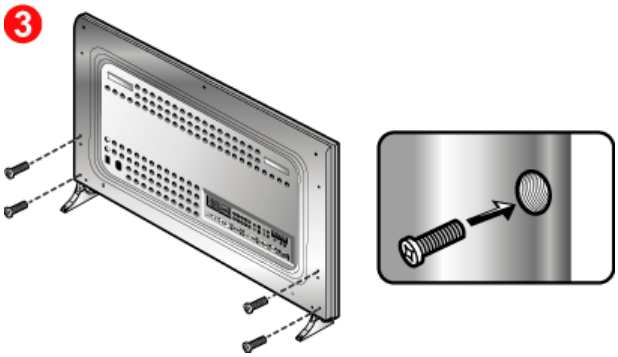
Only the supplied bolts should be used.

Samsung Electronics will not be responsible for damages caused by using a base other than those specified.

1. Installing the Semi Stand



Left stand **Right stand**

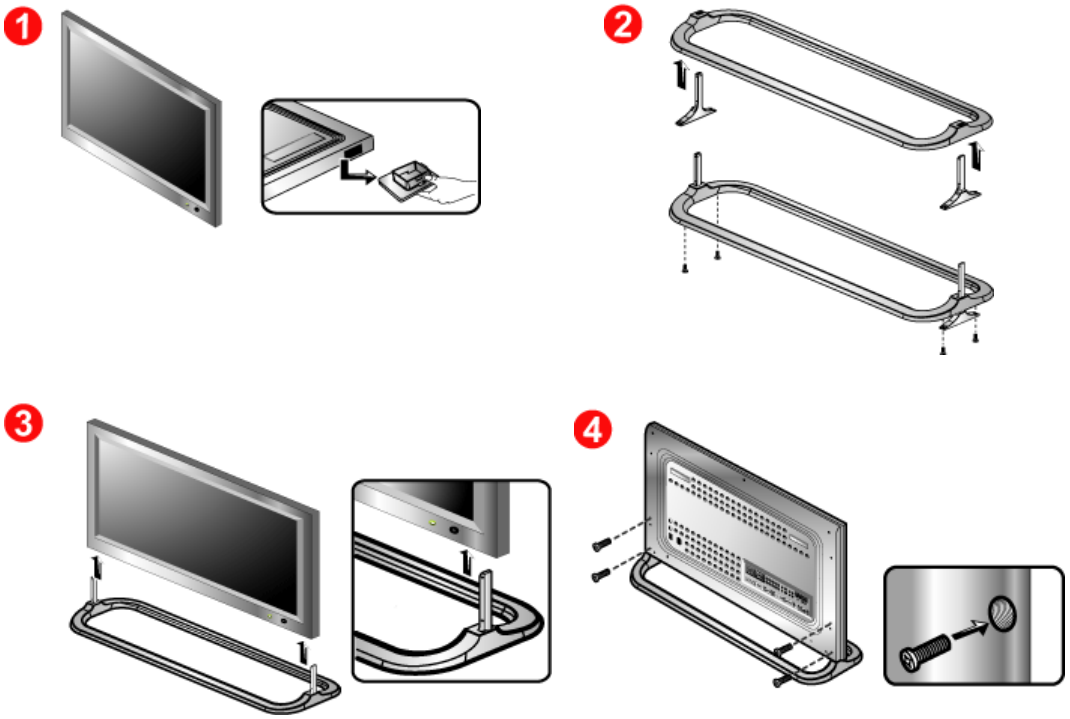


1. A 'Cover-Protector' is used to protect the hole at the bottom of the monitor, where the stand is inserted. Be sure to remove the 'Cover-Protector' when attaching the provided Semi Stand or stand kit (sold separately) and cover the hole using the 'Cover-Hole' when attaching the wall mount kit.
2. Set up the left and right stands respectively.
3. Put the stand into the hole at the bottom of the monitor.
   Insert screw into the hole indicated and tighten. (M5 × 4)

The Semi Stand is provided only for screen adjustment before the stand kit or wall mount kit (sold separately) is attached. The Semi Stand is not intended for use as a regular stand and Samsung Electronics is not responsible for any problems caused by using it instead of the regular products. Never use the Semi Stand as the regular stand.

Installing Stand Kit

2. Installing Stand Kit (sold separately)



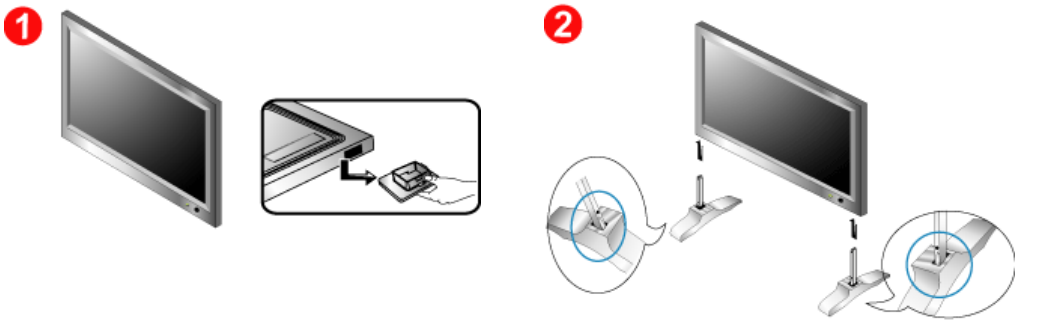
1. A 'Cover-Protector' is used to protect the hole at the bottom of the monitor, where the stand is inserted. Be sure to remove the 'Cover-Protector' when attaching the provided Semi Stand or stand kit (sold separately) and cover the hole using the 'Cover-Hole' when attaching the wall mount kit.
2. Make sure you put the parts in the right direction and in the right place. (M5 × 4)
3. Put the stand into the hole at the bottom of the monitor.
4. Insert screw into the hole indicated and tighten. (M5 × 4)

Installing Stand Kit

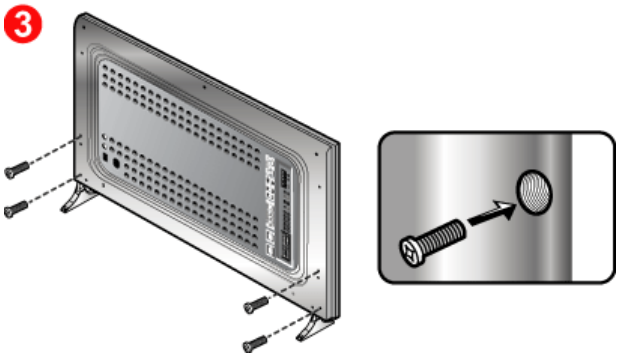
Only the supplied bolts should be used.

Samsung Electronics will not be responsible for damages caused by using a base other than those specified.

1. Installing the Semi Stand



Left stand **Right stand**

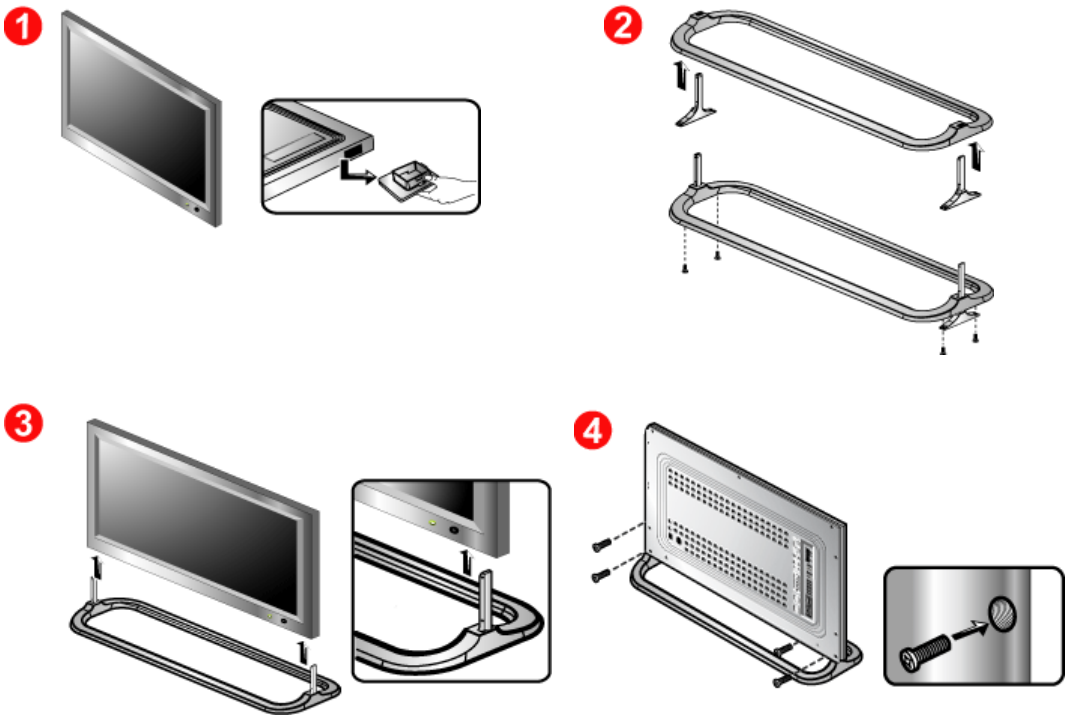


1. A 'Cover-Protector' is used to protect the hole at the bottom of the monitor, where the stand is inserted. Be sure to remove the 'Cover-Protector' when attaching the provided Semi Stand or stand kit (sold separately) and cover the hole using the 'Cover-Hole' when attaching the wall mount kit.
2. Set up the left and right stands respectively.
3. Put the stand into the hole at the bottom of the monitor.
   Insert screw into the hole indicated and tighten. (M5 × 4)

The Semi Stand is provided only for screen adjustment before the stand kit or wall mount kit (sold separately) is attached. The Semi Stand is not intended for use as a regular stand and Samsung Electronics is not responsible for any problems caused by using it instead of the regular products. Never use the Semi Stand as the regular stand.

Installing Stand Kit

2. Installing Stand Kit (sold separately)



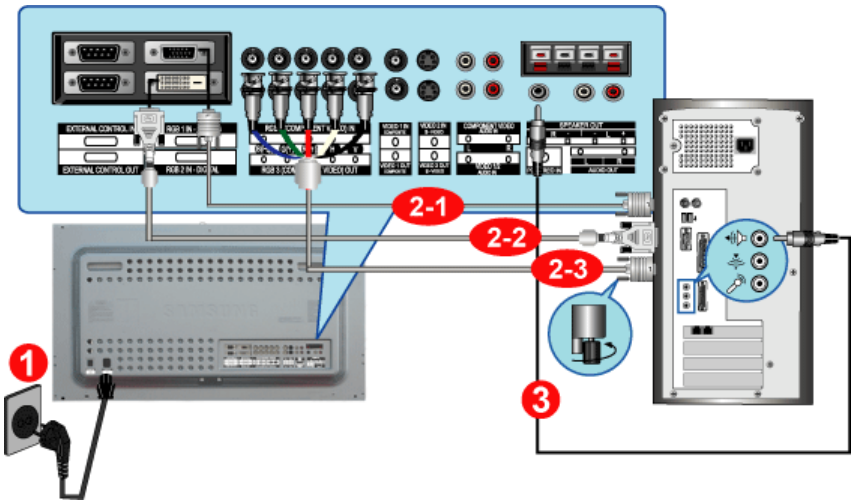
1. A 'Cover-Protector' is used to protect the hole at the bottom of the monitor, where the stand is inserted. Be sure to remove the 'Cover-Protector' when attaching the provided Semi Stand or stand kit (sold separately) and cover the hole using the 'Cover-Hole' when attaching the wall mount kit.
2. Make sure you put the parts in the right direction and in the right place. (M5 × 4)
3. Put the stand into the hole at the bottom of the monitor.
4. Insert screw into the hole indicated and tighten. (M5 × 4)

Connecting Your Monitor

AV input devices like DVDs, VCRs or Camcorders as well as your computer may be connected to the monitor. For detailed information on connecting AV input devices, refer to User Controls under Adjusting Your Monitor.

Connecting to a Computer | Connecting to a VCR | Connecting to a DVD Player | Connecting a Camcorder
Connecting DTV Set Top Box | Connecting Speakers | Connecting to an Audio System

1. Connecting to a Computer

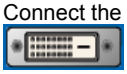


1. Connect the power cord for your monitor to the power port on the back of the monitor.
   Trun on power switch.
2. Connect the signal cable to the **PC Video Connection Terminal** on your computer.

   There are 3 ways to connect the signal cable to your monitor.
   Choose one of the followings :

   2-1. Using the D-sub (Analog) connector on the video card.
   Connect the signal cable to the **15 pin D-sub Port** on the back of your monitor.

   2-2. Using the DVI (Digital) connector on the video card.
   Connect the DVI Cable(DVI-D + DVI-D) to the **DVI Port** on the back of your Monitor.

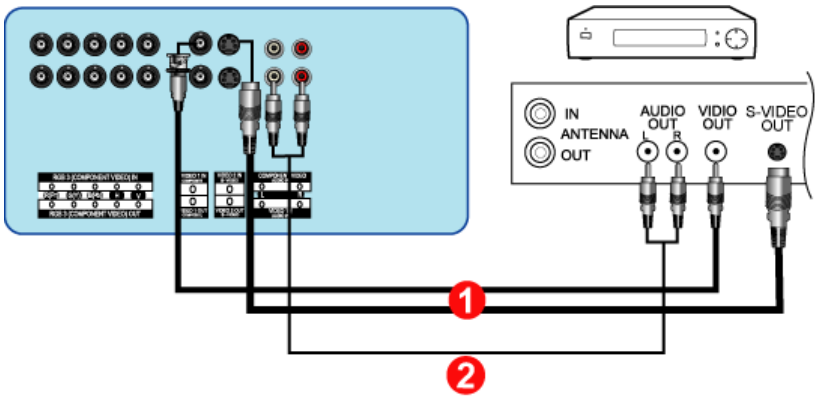
   2-3. Using the BNC (Analog) connector on the video card.
   Connect the BNC Cable to the **RGB 3 (COMPONENT VIDEO) IN terminal - B, G, R, H, V port** on the back of your Monitor.

   DVI cable or BNC cable is optional.
3. Connect the audio cable for your monitor to the audio port on the back of your computer.
4. Turn on both your computer and the monitor.

Contact a local Samsung Electronics service center to buy optional items.

Connecting Your Monitor

2. Connecting to a VCR



1. AV input devices like VCRs or Camcorders are connected to the **S-Video Connection Terminal** or **CVBS Video Connection Terminal** of the monitor using the S-VHS or BNC cable.

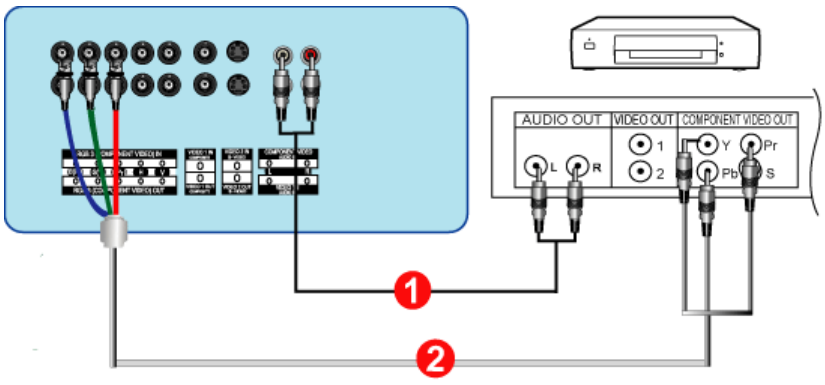
   S-VHS or BNC cable is optional.

2. Connect the Audio (L) and Audio (R) terminals of a VCR or Camcorders to the monitor's **CVBS, S-Video Audio Connection Terminal** using audio cables.

3. Select **Video 1** or **Video 2** that is connected to a VCR or Camcorders using the Source button on the monitor's front or remote control.

4. Then, start the VCR or Camcorders with a tape inserted.

3. Connecting to a DVD Player



1. Connect a set of audio cables between the **Component Audio Connection Terminal** on the Monitor and the AUDIO OUT jacks on the DVD player.

2. Connect a BNC cable between the **RGB 3 (COMPONENT VIDEO) IN terminal - Pb, Y, Pr port** on the Monitor and the Pb Y, Pr jacks on the DVD player.

   BNC cable is optional.

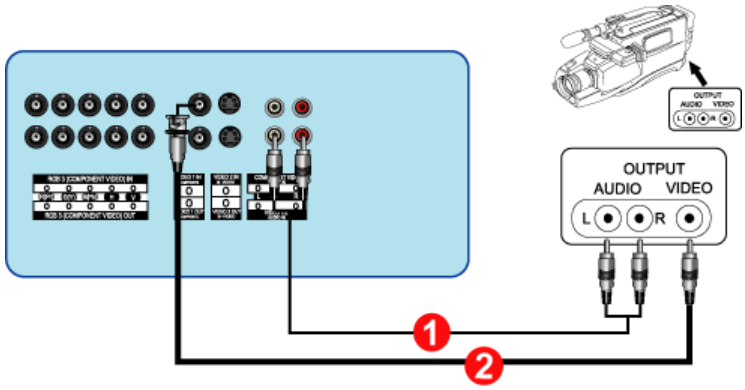
3. Select **BNC** that is connected to a DVD player using the Source button on the monitor's front or remote control.

4. Then, start the DVD Player with a DVD disc inserted.

For an explanation of Component video, see your DVD player owner's manual.

Connecting Your Monitor

4. Connecting a Camcorder

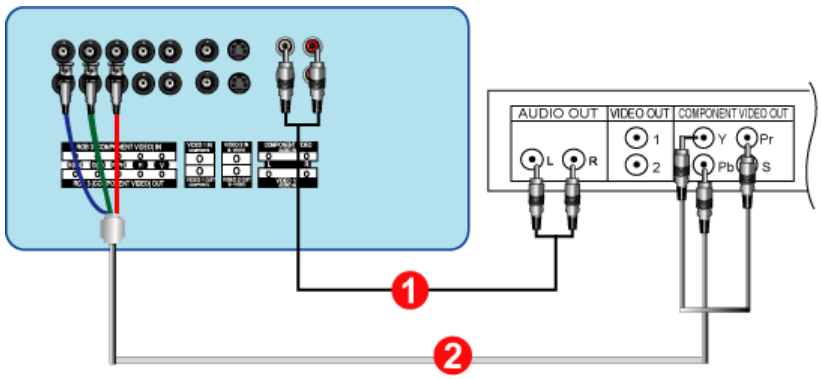


1. Locate the A/V output jacks on the camcorder. They are usually found on the side or back of the camcorder.
   Connect a set of audio cables between the AUDIO OUTPUT jacks on the camcorder and the **CVBS, S-Video Audio Connection Terminal** on the Monitor.
2. Connect a video cable between the VIDEO OUTPUT jack on the camcorder and the **CVBS Video Connection Terminal** on the Monitor.
3. Select **Video 1** that is connected to a Camcorder using the Source button on the monitor's front or remote control.
4. Then, start the Camcorders with a tape inserted.

The audio-video cables shown here are usually included with a Camcorder. (If not, check your local electronics store.) If your camcorder is stereo, you need to connect a set of two cables.

5. Connecting DTV Set Top Box

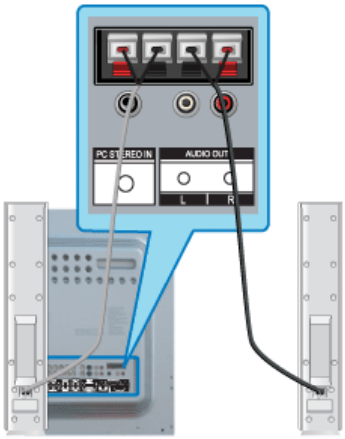
The connections for a typical Set Top Box are shown below.



1. Connect a set of audio cables between the **Component Audio Connection Terminal** on the Monitor and the AUDIO OUT jacks on the Set Top Box.
2. Connect a BNC cable between the **RGB 3 (COMPONENT VIDEO) IN terminal - Pb, Y, Pr port** on the Monitor and the Pb, Y, Pr jacks on the Set Top Box.
3. Select **BNC** that is connected to a DTV Set Top Box using the Source button on the monitor's front or remote control.

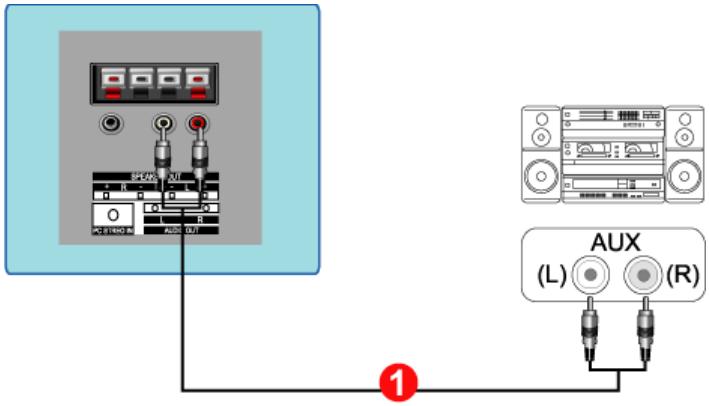
For an explanation of Component video, see your Set Top Box owner's manual.

Connecting Your Monitor



1. Connect the Left, Right audio speaker cable to the external speaker output jacks on the rear of the Monitor, matching the red "+" and the black "-" ends of the cable with the diagram on the Monitor.

7. Connecting to an Audio System

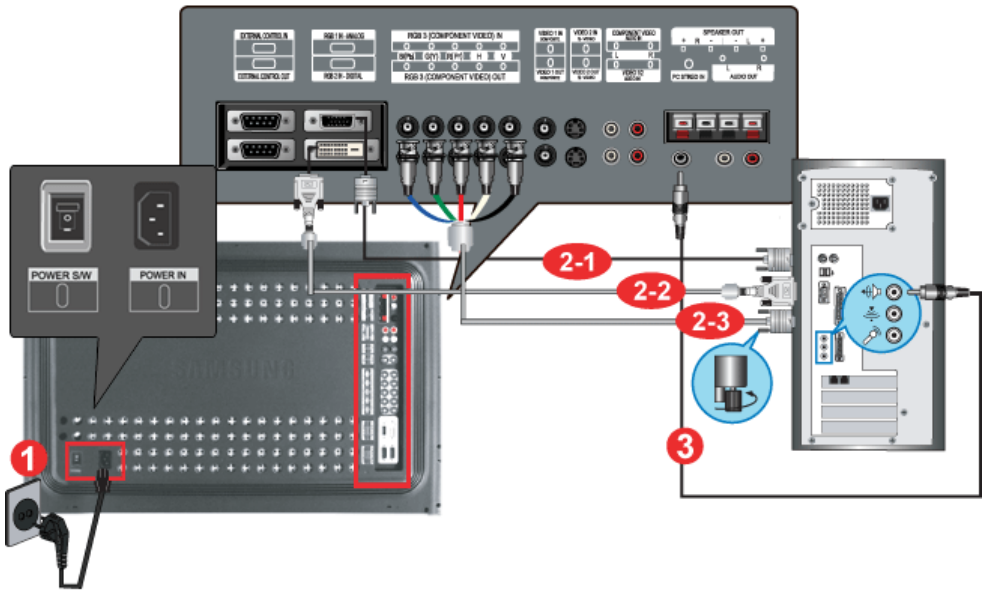


1. Connect a set of audio cables between the AUX L, R jacks on the AUDIO SYSTEM and the **Audio Line-out Connection Terminal** on the Monitor.

Connecting Your Monitor

AV-inputenheder som DVD'er, videoafspillere eller Camcordere samt computeren kan tilsluttes skærmen. Yderligere oplysninger om tilslutning af AV-inputenheder finder du under Brugerkontrolelementer under Justering af skærmen.

1. Tilslutning til en computer



1. Forbind skærmens strømkabel til strømstikket på skærmens bagpanel.
   Tænd for tænd/sluk-knappen.

2. Tilslut signalkablet til **PC-videotilslutningsterminal** på computeren.

   Der er tre måder at tilslutte signalkablet til din monitor på.
   Vælg en af følgende :

   2-1. Bruge D-sub-tilslutningskablet (analogt) sammen med skærmkortet.
   Tilslut signalkablet til videostikket på din computer, video board, videokort eller grafikkort.

   2-2. Bruge DVI-tilslutningskablet (digitalt) sammen med skærmkortet.
   Tilslut DVI-kablet(DVI-D + DVI-D) til DVI-porten bag på din monitor.

   2-3. Bruge BNC-tilslutningskablet (analogt) sammen med skærmkortet.
   Tilslut BNC-kablet til RGB 3 (analog PC) Tilslutning: tilslutning af B-, G-, R-, H-, V-port bag på din monitor.

   DVI- eller BNC-kablet er valgfrit.

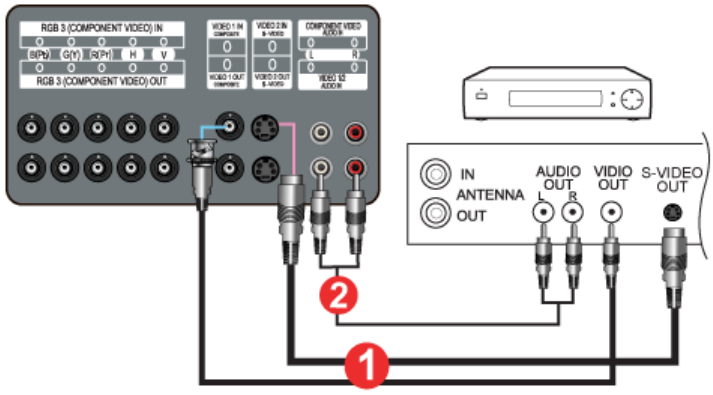
3. Tilslut lydkablet til skærmen til lydporten bag på computeren.

4. Tænd både for computeren og skærmen.

Kontakt et lokalt Samsung Electronics- servicecenter, hvis du vil købe ekstra tilbehør.

Connecting Your Monitor

2. Tilslutning til en videobåndoptager



1. AV-inputenheder som videoafspillere eller Camcordere er tilsluttet **S-videotilslutningsterminal** or **CVBS-videotilslutningsterminal** til skærmen ved hjælp af S-VHS- eller BNC-kablet.

   S-VHS- eller BNC-kablet er valgfrit.

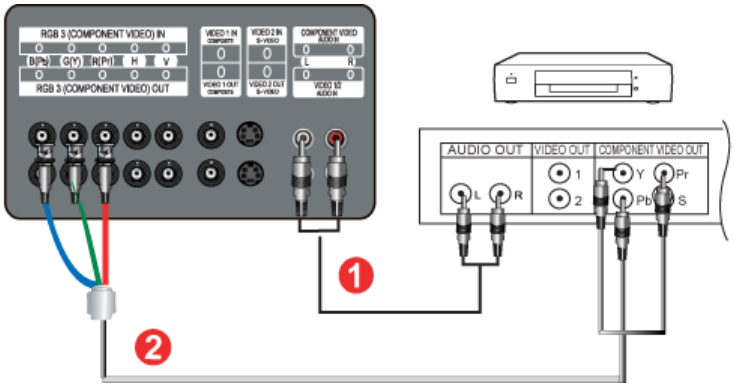
2. Tilslut lyd- (L) og lyd (R)-terminalerne til en videoafspiller eller Camcorder til skærmens L- og R-lydinputterminaler ved hjælp af lydkabler.

3. Vælg **Video 1** eller **Video 2**, der er tilsluttet en videoafspiller eller Camcorder, med kildeknappen foran på skærmen.

4. Start derefter videoafspilleren eller Camcorderen med et bånd indsat.

---

3. Tilslutning til en DVD-afspiller



1. Tilslut et sæt audiokabler mellem stikkene **Komponentaudiotilslutninsterminal (input)** på skærmen og AUDIO OUT-stikkene på DVD-afspilleren.

2. Tilslut et videokabel mellem stikkene **Komponent Tilslutning: tilslutning af Pb-, Y-, Pr-port** på skærmen og stikkene Pb, Y, Pr på DVD-afspilleren.

   BNC-kablet er valgfrit.

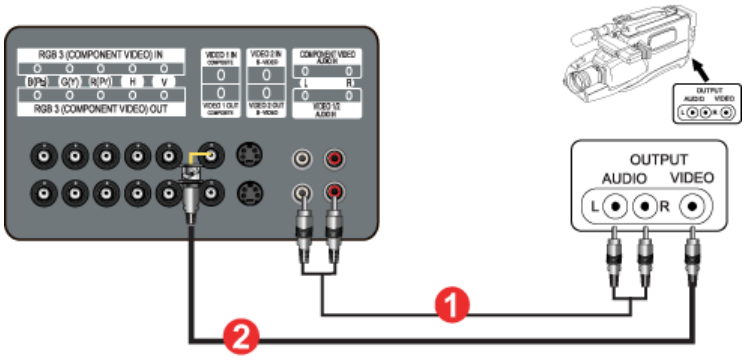
3. Vælg **BNC**, der er tilsluttet en DVD-afspilleren, med kildeknappen foran på skærmen.

4. Start derefter DVD'en med en DVD-disk indsat.

Du kan finde en beskrivelse af komponentvideoen i brugervejledningen til DVD-afspilleren.

Connecting Your Monitor

4. Tilslutning til en camcorder

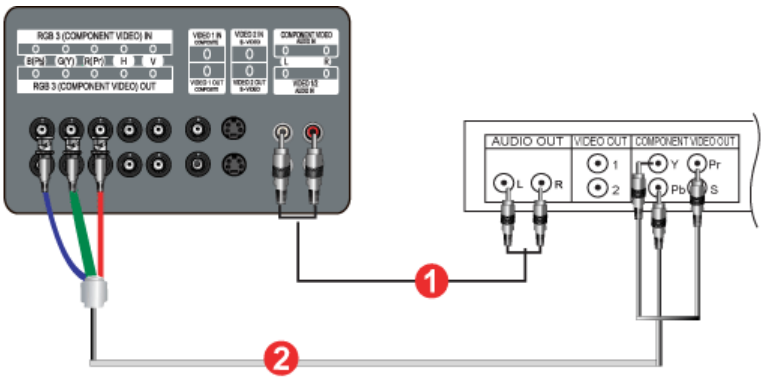


1. Find AV-udgangsstikkene på camcorderen. De er normalt placeret bag på eller på siden af camcorderen.
   Tilslut et sæt audiokabler mellem AUDIO OUTPUT-stikkene på camcorderen og **CVBS-, S-videoaudiotilslutningsterminal (input)** på skærmen.
2. Tilslut et videokabel mellem VIDEO OUTPUT-stikket på camcorderen og VIDEO-stikket på skærmen.
3. Vælg **Video 1**, der er tilsluttet en Camcorderen, med kildeknappen foran på skærmen.
4. Start derefter Camcorderen med et bånd indsat.

De viste audio/videokabler følger normalt med camcorderen. (Hvis ikke, skal du henvende dig i den lokale elektronikforretning). Hvis camcorderen fungerer i stereo, skal du tilslutte to kabler.

5. Tilslutning af DTV Set Top Box

Tilslutningerne for en typisk Set Top Box er vist nedenfor.

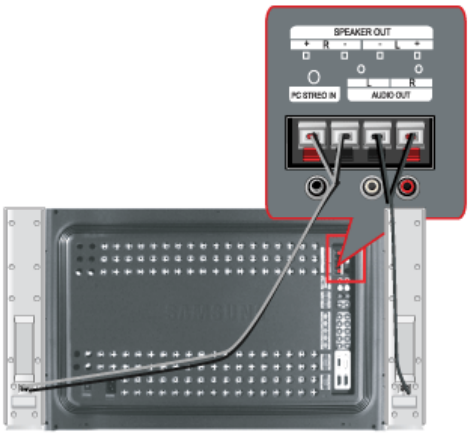


1. Tilslut et sæt audiokabler mellem stikkene **Komponentaudiotilslutninsterminal (input)** på skærmen og AUDIO OUT-stikkene på Set Top Box'en.
2. Tilslut et videokabel mellem stikkene **Komponent Tilslutning: tilslutning af Pb-, Y-, Pr-port** på skærmen og stikkene Pb, Y, Pr på Set Top Box'en.
3. Vælg **BNC**, der er tilsluttet en DTV Set Top Box, med kildeknappen foran på skærmen.

Du kan finde en beskrivelse af komponentvideoen i brugervejledningen til Set Top Box'en.

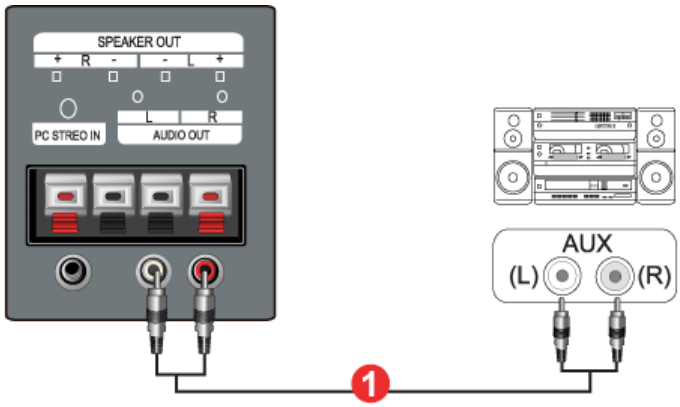
Connecting Your Monitor

6. Tilslutning af højttalere



1. Tilslut venstre og højre højttalerkabel til de eksterne udgangsstik til højttalerne bag på skærmen. Sørg for, at kabelenderne, henholdsvis den røde "+" og den sorte "-", passer til diagrammet på skærmen.

7. Tilslutning til et audiosystem

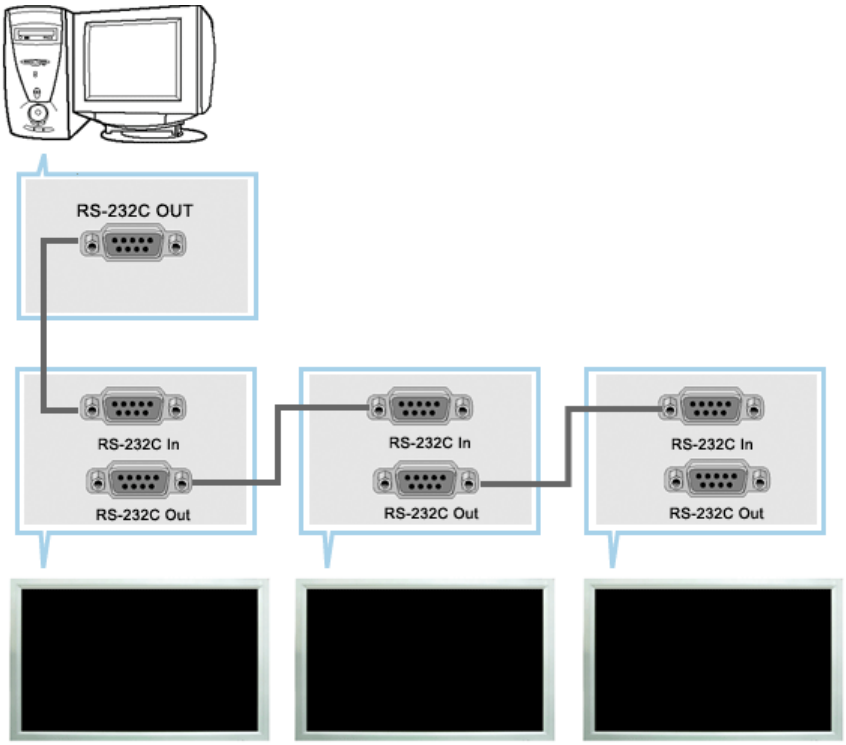


1. Tilslut et sæt audiokabler mellem stikkene AUX L, R på lydsystemet og stikkene Audiotilslutningsterminal til udgående linje (output) på skærmen.

Multiple Display Control (MDC)

1. Introduction
2. Install
3. Beginning :
   Main Screen | Port Setting | Port Change
4. Power Control
5. Input Source Control
6. Image Size Control :
   RGB 1, 2, 3 | Video 1, 2, Component
7. Time Control
8. PIP Control :
   PIP Size | PIP Source
9. Settings Control :
   Picture | Picture RGB | Audio | Image Lock 1 | Image Lock 2
10. Diagnostics
11. Troubleshooting
12. Settings Value Display In Multiple Display Mode

1.Introduction



A Multiple Display Control (MDC) is an application allowing various displays to be easily and simultaneously operated on a PC. RS-232C, a standard of serial communication, is used for the communication between a PC and a display. Therefore, a serial cable should be connected between the serial port on a PC and the serial port on a display.

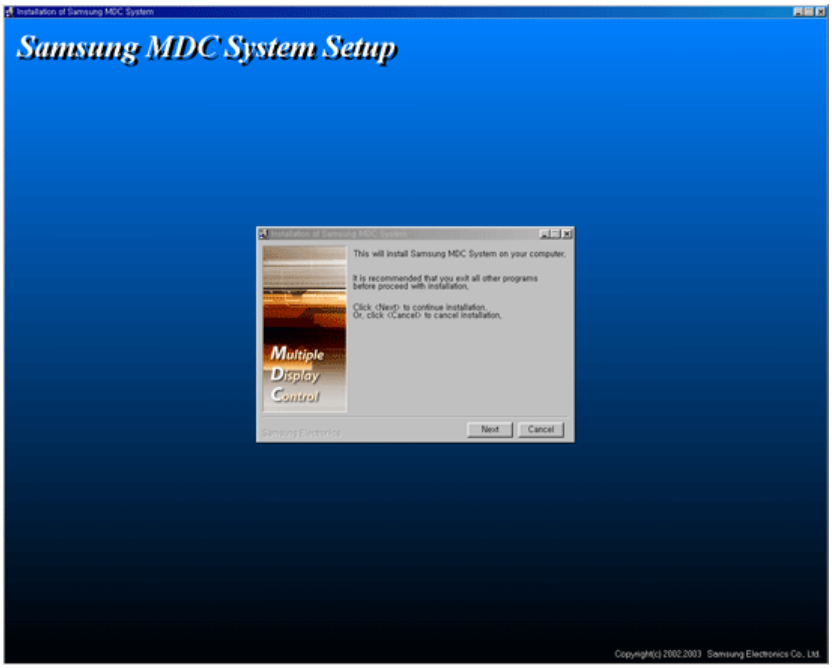
Multiple Display Control (MDC)

2. Install

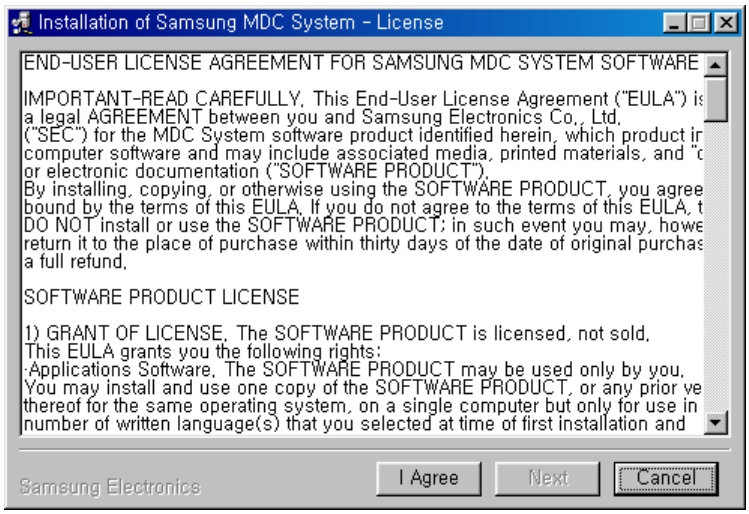
1. PC Requirements (recommended) : Pentium II, 64M or greater RAM, 800 x 600, 256 color or higher PC display.
2. OS: Windows 95, Windows 98, Windows ME, Windows 2000, Windows XP and XP Professional

   ▸ Minimum system requirement for MDC Program
   - Windows 98/ME/2000/XP : Support both English and Others version.
3. Click SETUP.EXE, and the following screen appears and the basic files for setup are copied.

The proper operation of this program is guaranteed only when it is used with Samsung SyncMaster 323T / 403T model and is not guaranteed when the user run this program with other models.
Some functions are not supported in SyncMaster 323T / 403T.


Samsung MDC System Setup
This will install Samsung MDC System on your computer.
It is recommended that you exit all other programs before proceed with installation.
Click <Next> to continue installation.
Or, click <Cancel> to cancel installation.
Multiple Display Control
Next
Cancel

4. If you agree to the terms and conditions of the software, select the "I Agree" button.
   Then installation program starts to install packages.


Installation of Samsung MDC System - License
END-USER LICENSE AGREEMENT FOR SAMSUNG MDC SYSTEM SOFTWARE
IMPORTANT-READ CAREFULLY. This End-User License Agreement ("EULA") is
a legal AGREEMENT between you and Samsung Electronics Co., Ltd.
("SEC") for the MDC System software product identified herein, which product in
computer software and may include associated media, printed materials, and "c
or electronic documentation ("SOFTWARE PRODUCT").
By installing, copying, or otherwise using the SOFTWARE PRODUCT, you agree
bound by the terms of this EULA. If you do not agree to the terms of this EULA, t
DO NOT install or use the SOFTWARE PRODUCT; in such event you may, howe
return it to the place of purchase within thirty days of the date of original purchas
a full refund.
SOFTWARE PRODUCT LICENSE
1) GRANT OF LICENSE. The SOFTWARE PRODUCT is licensed, not sold.
This EULA grants you the following rights:
·Applications Software. The SOFTWARE PRODUCT may be used only by you.
You may install and use one copy of the SOFTWARE PRODUCT, or any prior ve
thereof for the same operating system, on a single computer but only for use in
number of written language(s) that you selected at time of first installation and
Samsung Electronics
I Agree
Next
Cancel

5. Select the folder in which you want to install the program and then click Install button. Now installationation is completed.

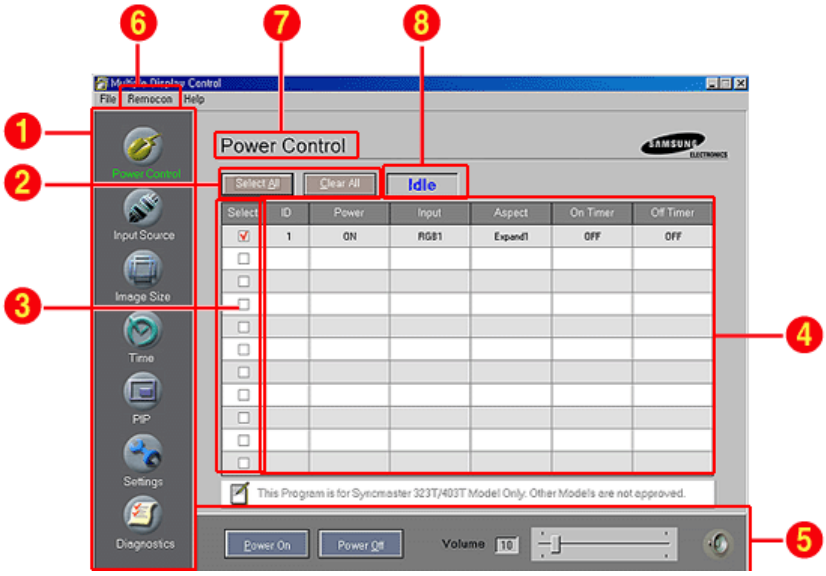
Multiple Display Control (MDC)

5. Select the folder in which you want to install the program and then click Install button. Now installationation is completed.

Multiple Display Control (MDC)

3. Beginning – Main Screen

- Click Start > Program > Multiple Display Control to start the program.
- Select a set to see the volume of the selected set within the slider.



1 Main Icons
2 Select Button
3 Display Selection
4 Info Grid
5 Control Tools
6 Remocon
7 Title
8 Comm. Status

---

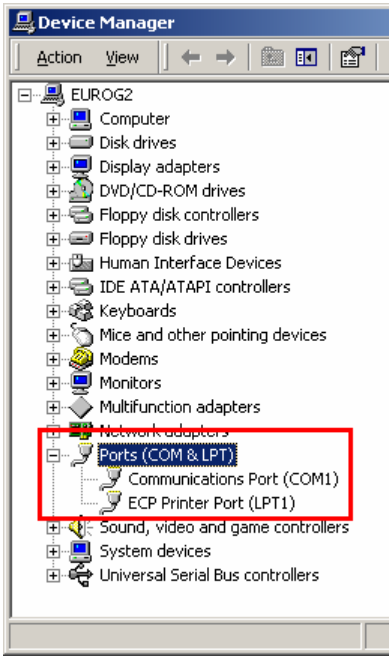
1. Use the main icons to switch into each screen.
2. Click Select all or Clear to select or clear all displays.
3. Select a display from Display Selection.
4. Use Grid to view brief information on selected display.
5. Use Control Tools to control displays.
6. Allows you to enable or disable the remote control signal receiving function of the display unit.
7. The current title to be controlled is displayed.
8. Indicates the communication status between the MDC and the display.

Shows “Busy” while communicating and “Idle" when the communication is off.

<Note> The remote control Enable/Disable function operates whether or not the power is On/Off, and this applies to all displays connected to the displays connected to the MDC However, regardless of the status at the time the MDC is shut down, the remote control signal receiving function of all displays is initialized to Enable when the MDC is closed.

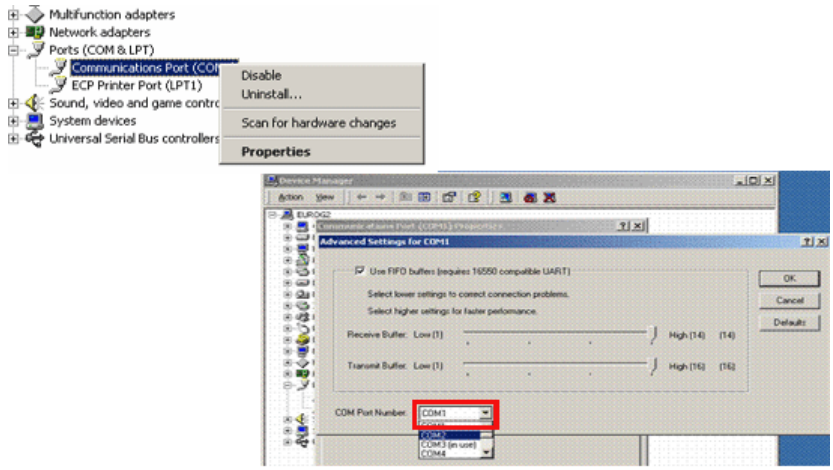
Multiple Display Control (MDC)

3. Beginning – Port Setting



1. The Multiple Display Control uses only “Com1.” The Control does not function with any other ports.
2. To check which port is installed, go to Control Panel > System > Hardware > Device Manager > Ports.
3. If the port installed is Com2, change to Com1 in Windows 2000 (See next chapter). For all the other operating systems, the change can be made from the BIOS Setup of your PC.
4. Use Exit to end the program. The Help menu shows how to use the program and general information about the program.

3. Beginning – Port Change

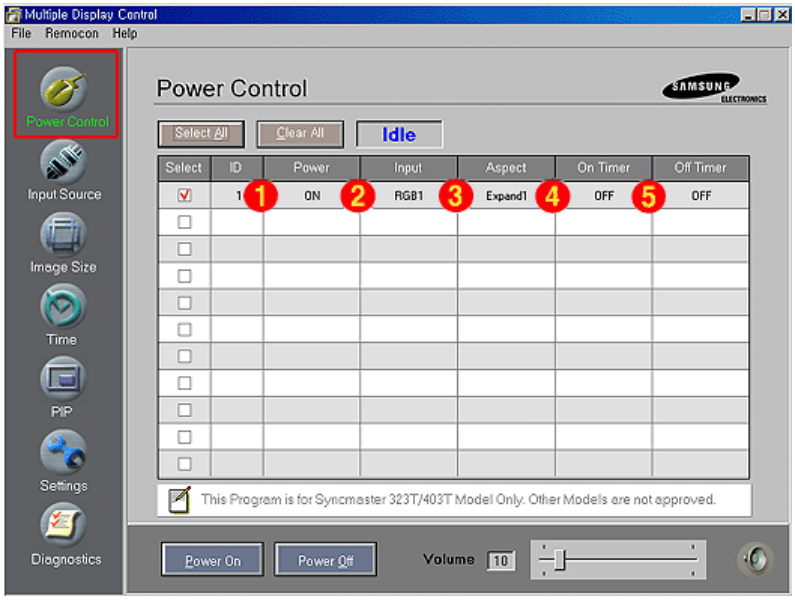


1. The Multiple Display Control uses only with Com1. It does not function with any other ports including Com2.
2. You can change the port to “Com1” in Windows 2000 as follows.
3. Go to Control Panel > System > Hardware > Device Manager > Ports > Right Mouse Click > Properties > Port Settings Tab > Advanced
4. Choose COM1

Multiple Display Control (MDC)

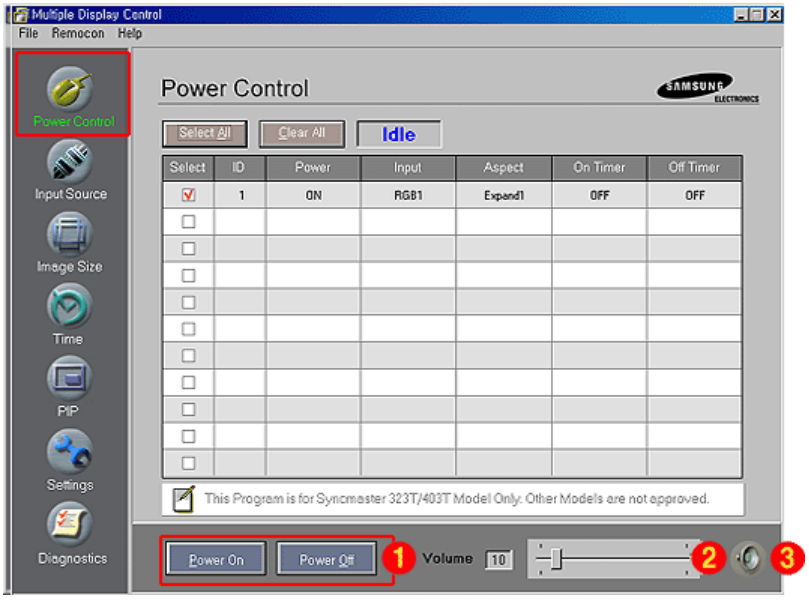
4. Power Control

1. Click Power Control of the main icons and the Power Control screen appears.



- Info Grid shows some basic information necessary to Power Control.
  1) Power Status
  2) Input Source
  3) Aspect Ratio
  4) On Timer Status
  5) Off Timer Status

2. Use the Select All button or Check Box to choose a display to control.



- ☑ Power Control allows controlling some of the functions of the selected display.

1) Power On/Off
   - Turns the power of the selected display On/Off.
     Turns on each set at one second interval to prevent the power overload that might occur when many sets turn on at the same time.

2) Volume Control

Multiple Display Control (MDC)

- Controls the volume level of the selected display. It receives the volume value of the selected display from the sets and displays it in the slider. (When you cancel the selection or choose Select All, the value returns to the default value 10)

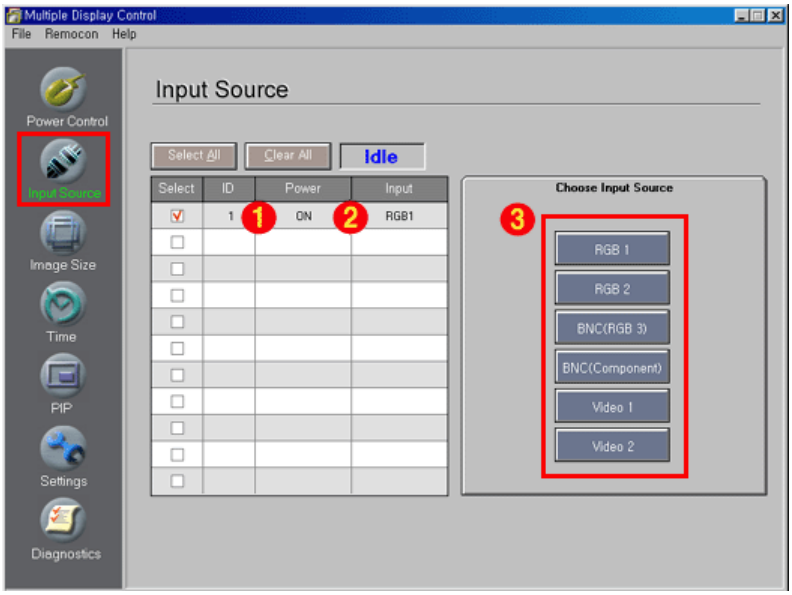
3) Mute On/Off
- Turns the mute of the selected display On/Off . When selecting one set at a time, if the selected set is already set to MUTE, you must mark the MUTE display. (If you choose undo the selections or choose Select All, the values return to default settings.)

- **Power Control applies to all displays.**
- **The Volume and Mute functions are available only for the displays for which the power status is ON.**

---

5. Input Source Control

1. Click Input Source of the main icons and the Input Source control screen appears. Click Select All or use Check Box to select a display to control.



▸ Info Grid shows some basic information necessary to Input Source Control.

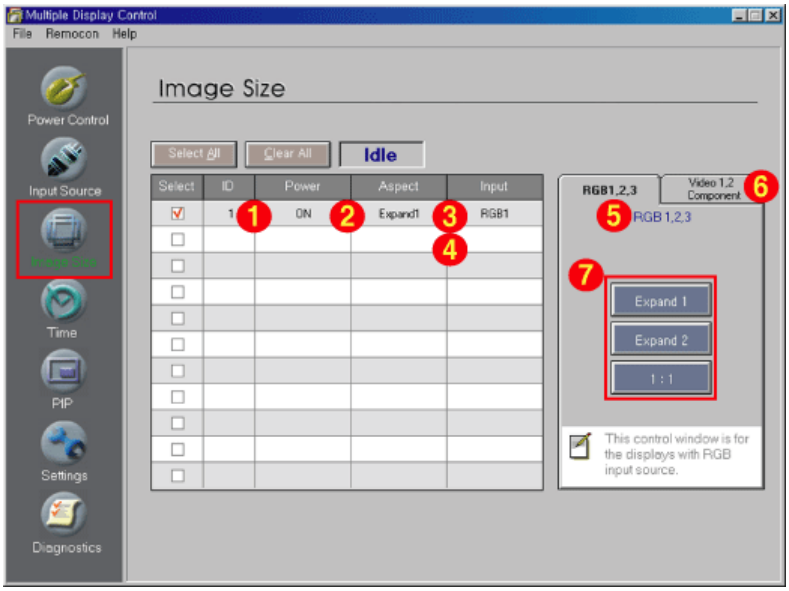
1) Power Status
- Shows the power status of the current display.

2) Input Source
- Shows the Input Source currently in use.

3) Choose Input Source
- Change Input Source of the selected display.
  - RGB 1 : Changes the Input Source of the selected display to RGB 1.
  - RGB 2 : Changes the Input Source of the selected display to RGB 2.
  - BNC(RGB 3) : Changes the Input Source of the selected display to RGB 3.
  - BNC(Component) : Changes the Input Source of the selected display to Component.
  - Video 1 : Changes the Input Source of the selected display to Video 1.
  - Video 2 : Changes the Input Source of the selected display to Video 2.

- **Input Source Control applies only to the displays for which the power status is ON.**

Multiple Display Control (MDC)



- Info Grid shows some basic information necessary to Image Size Control.

1) Power
   - Shows the power status of the current display.
2) Aspect
   - Shows the current Image Size of the display in use.
3) Input Source
   - Shows the current Input Source of the display in use.

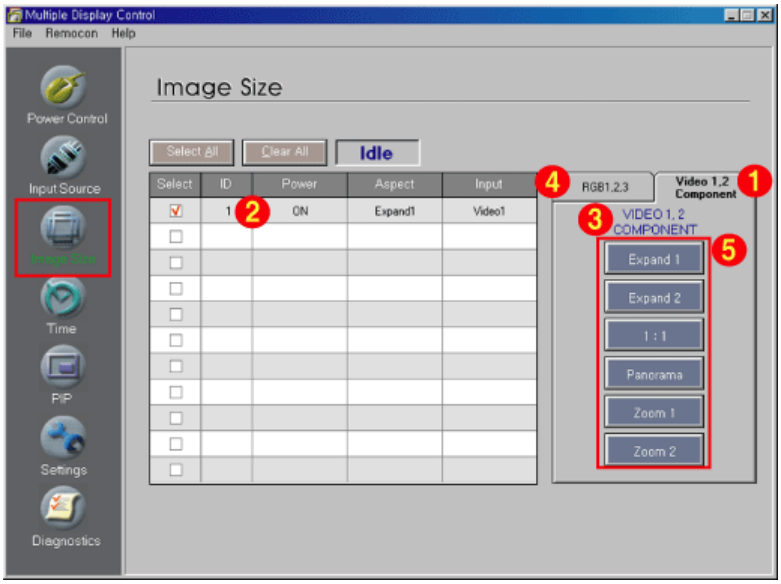
- 4) Info Grid displays only the displays whose Input Source is RGB 1, 2, 3.

5) When you click Image Size, the RGB 1, 2, 3 tabs first appear.
   - The Image Size Control button controls Image Size available for RGB 1, 2, 3.
6) Click the Video 1, 2, Component tab to control Image Size for respective Input Source.
7) Click to change Image Size of the selected display.
   Image Size Control is available only for the displays for which power status is ON.

Multiple Display Control (MDC)

6. Image Size Control - Video 1, 2, Component

1. Click Image Size of the main icons and the Image Size control screen appears.



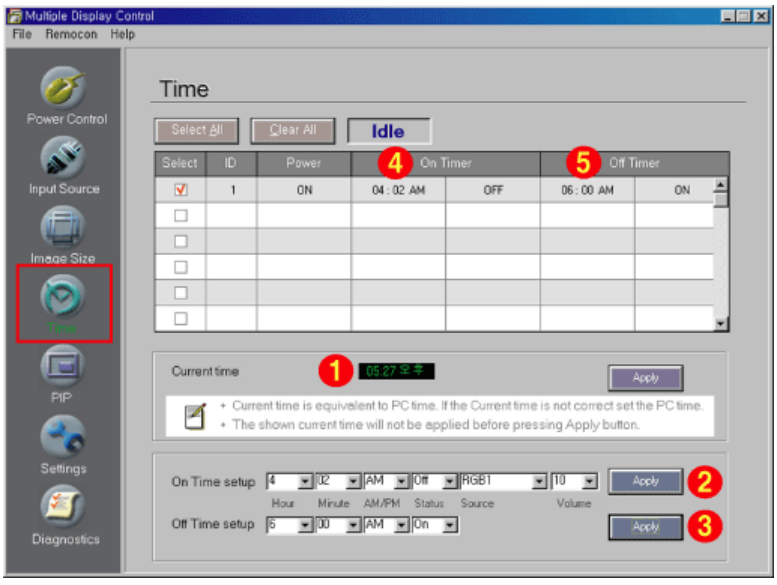
▸ Info Grid shows some basic information necessary to Image Size Control.

1) Click the Video 1, 2, Component tab to adjust Image Size for Video 1, 2, Component. Click Select All or use Check Box to select a display to control.
2) Info Grid displays only the display having Video 1, 2, Component as input source.
3) Switch Image Size of the selected display randomly.
4) You can also adjust Image Size for RGB 1, 2, 3 if you click on the RGB 1, 2, 3 tab.
5) Click to change Image Size of the selected display.

- **Image Size Control is available only for the displays for which power status is ON.**

7. Time Control

1. Click Time of the main icons and the Time Control screen appears.



▸ Info Grid shows some basic information necessary to Time Control.

1) Current Time
   - Set the current time for the selected display (PC Time).
   - To change the current time, first change the PC Time.

Multiple Display Control (MDC)

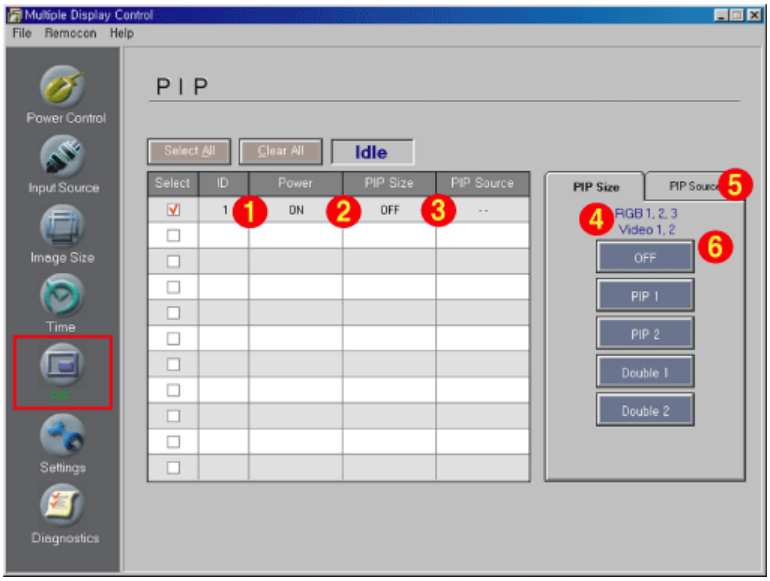
Current time is equivalent to PC time, If the Current time is not correct set the PC time
The shown current time will not be applien before pressing Apply button.

2) On Time Setup
   - Set the hour, minute, AM/PM of On Time, Status, Source, volume of the selected display.
3) Off Time Setup
   - Set the hour, minute, and AM/PM, Status for Off Timer of the selected display.
4) Shows the On Timer settings.
5) Shows the Off Timer settings.

- **Time Control is available only for the displays for which the power status is ON.**

8. PIP Control - PIP Size

1. Click PIP of the main icons and the PIP control screen appears.
   Click Select All or use Check Box to select a display to control.



- Info Grid shows some basic information necessary to PIP Size Control.

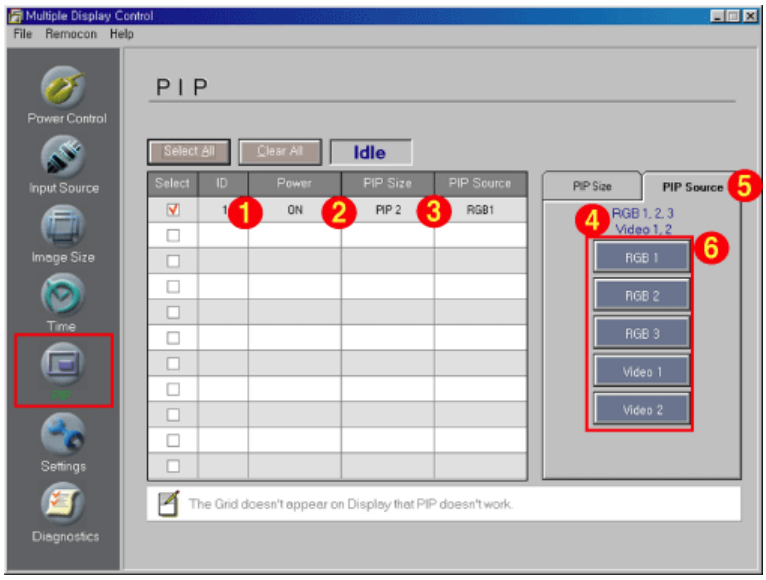
1) Power
   - Shows the power status of the current display.
2) PIP Size
   - Shows the current PIP Size of the display in use.
3) PIP Source
   - Shows the current PIP Source of the display in use.
4) When you click PIP, the PIP Size tabs first appear.
   - The PIP Control button controls PIP Size available for RGB 1, 2, 3, Video 1, 2.
5) Click the PIP Source tab to control PIP Source for respective Input source.
6) Click to change PIP Size of the selected display.
   - OFF : Turns off the PIP of the selected display.
   - PIP 1 : Turns on the PIP of the selected display and changes the size to PIP 1.
   - PIP 2 : Turns on the PIP of the selected display and changes the size to PIP 2.
   - Double 1 : Turns on the PIP of the selected display and changes the size to Double 1.
   - Double 2 : Turns on the PIP of the selected display and changes the size to Double 2.

- **PIP Size can be controlled with turning on the monitor power.**
- **The sets whose input signals are "Component" do not appear on the grid.**

Multiple Display Control (MDC)

8. PIP Control - PIP Source

1. Click PIP of the main icons and the PIP control screen appears.



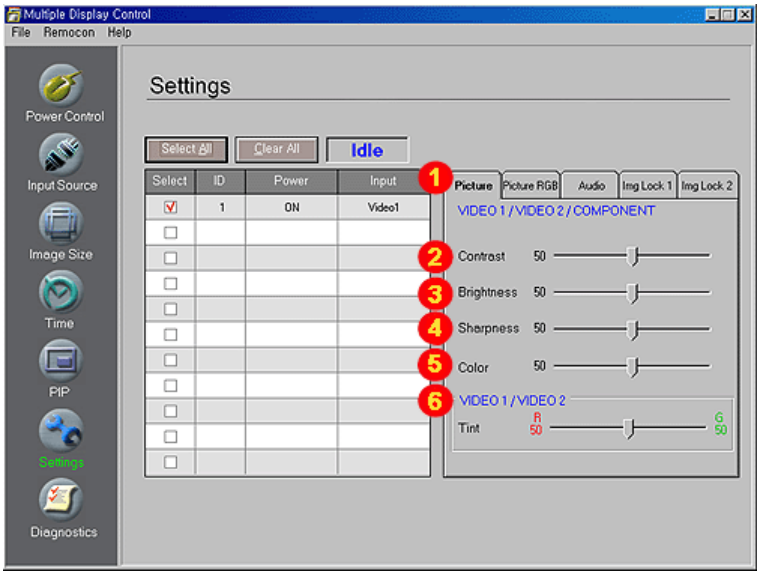
- Info Grid shows some basic information necessary to PIP Source Control.

1) Click the PIP Source tab to adjust PIP Source.
   Click Select All or use Check Box to select a display to control.
   - RGB 1 : Changes the source of the PIP of the selected display to RGB 1.
   - RGB 2 : Changes the source of the PIP of the selected display to RGB 2.
   - RGB 3 : Changes the source of the PIP of the selected display to RGB 3.
   - Video 1 : Changes the source of the PIP of the selected display to Video 1.
   - Video 2 : Changes the source of the PIP of the selected display to Video 2.

- **PIP Source can be controlled with turning on the monitor power.**
- **The Grid doesn't appear on Display that PIP doesn't work.**
- **PIP Source can't be controlled on set that PIP doesn't work.**
- **The sets whose input signals are "Component" do not appear on the grid.**

9. Settings Control - Picture

1. Click Settings of the main icons and the Settings Control screen appears.



Multiple Display Control (MDC)

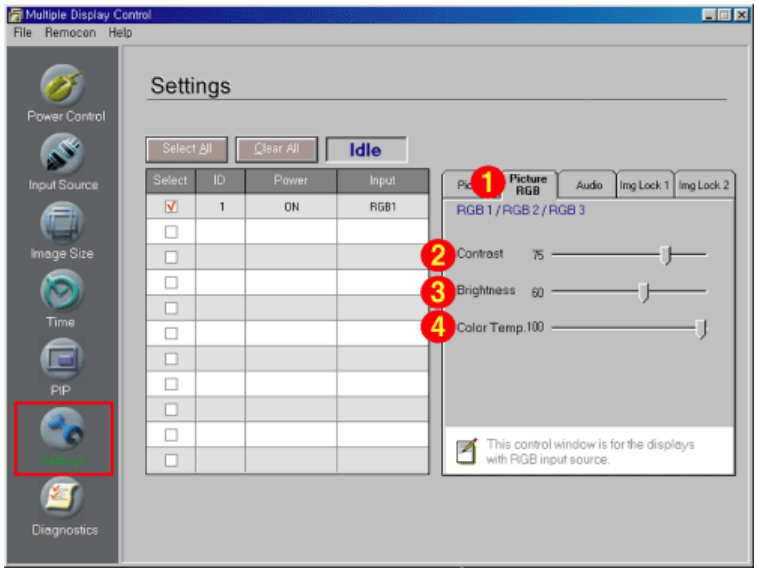
- Info Grid shows some basic information necessary to Settings Control. When each function is selected, the set value of the selected function is displayed in the slide.
  When Select All is selected, the default value (50) returns.

1) Picture
   - Available only for VIDEO 1, VIDEO 2, COMPONENT.
2) Contrast
   - Adjusts Contrast of the selected display.
3) Brightness
   - Adjusts Brightness of the selected display.
4) Sharpness
   - Adjusts Sharpness of the selected display.
5) Color
   - Adjusts Color of the selected display.
6) Tint- Available only for VIDEO 1, VIDEO 2
   - Adjusts Tint of the selected display.

- **Settings Control is available only for the displays for which the power status is ON and the default value is 50 when no adjustments are made.**

9. Settings Control - Picture RGB

1. Click Settings of the main icons and the Settings Control screen appears.



- Info Grid shows some basic information necessary to Settings Control. When each function is selected, the set value of the selected function is displayed in the slide.
  When Select All is selected, the default value (50) returns.

1) Picture RGB
   - Available only for RGB 1, RGB 2, RGB 3.
2) Contrast
   - Adjusts Contrast of the selected display.
3) Brightness
   - Adjusts Brightness for the selected display.
4) Color Temp.
   - Adjusts Color Temperature of the selected display.

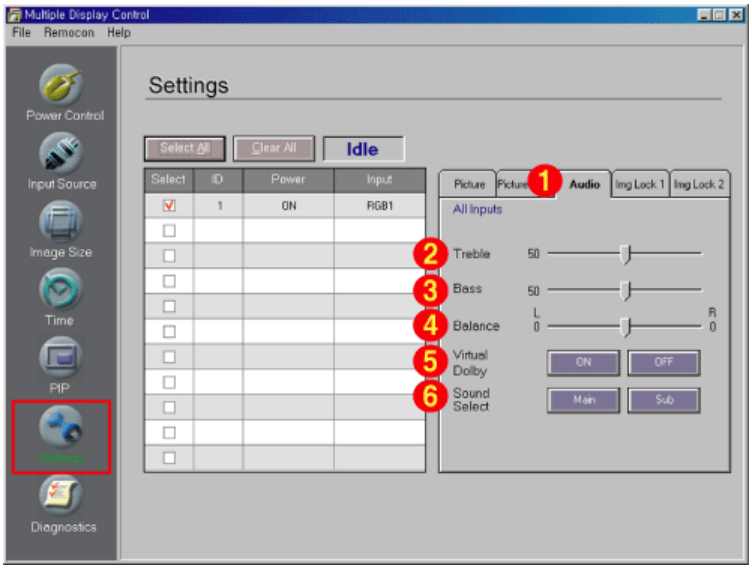
- **Settings Control is available only for the displays for which the power status is ON and the default value is 50 when no adjustments are made.**

This Control window is for the displays with RGB input source.

Multiple Display Control (MDC)

9. Settings Control - Audio

1. Click Settings of the main icons and the Settings Control screen appears.



- Info Grid shows some basic information necessary to Settings Control. When each function is selected, the set value of the selected function is displayed in the slide.
  When Select All is selected, the default value (50) returns.

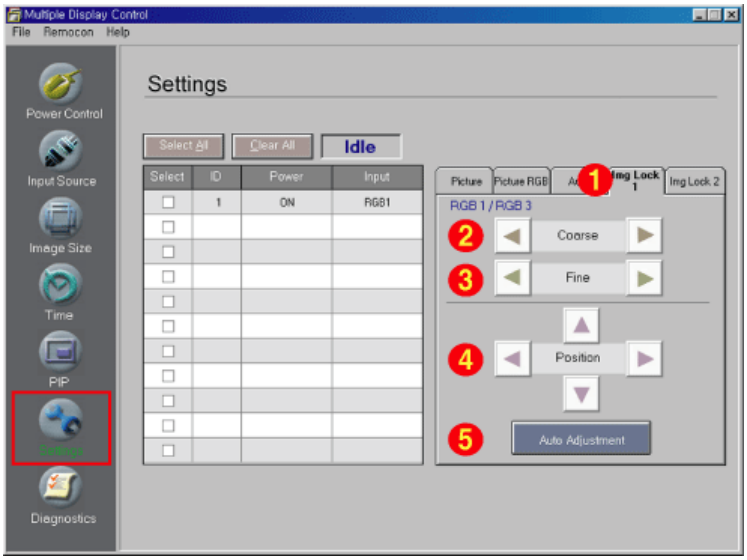
1) Audio
   - Controls audio settings for all input sources.
2) Treble
   - Adjusts Treble of the selected display.
3) Bass
   - Adjusts Bass of the selected display.
4) Balance
   - Adjusts Balance of the selected display.
5) Virtual Dolby
   - Virtual Dolby Sound On/Off of the selected display.
6) Sound Select
   - Select either Main or Sub when PIP is On.

- **Settings Control is available only for the displays for which the power status is ON and the default value is 50 when no adjustments are made.**
- **The Audio, Treble, Bass, Balance and Virtual Dolby features are available only in models that support the speaker function.**

Multiple Display Control (MDC)

9. Settings Control – Image Lock 1

1. Click Settings of the main icons and the Settings Control screen appears.



▸ Info Grid shows some basic information necessary to Settings Control.

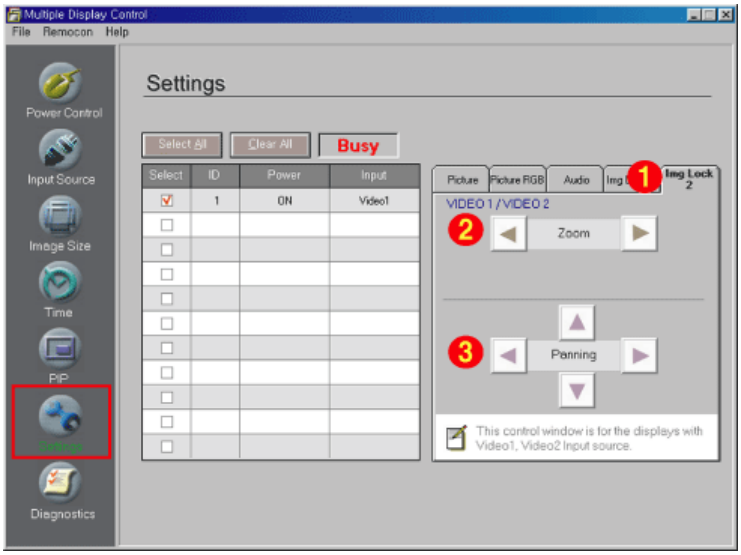
1) Image Lock 1
   - Available only for RGB 1, RGB 3.
2) Coarse
   - Adjusts Coarse of the selected display.
3) Fine
   - Adjusts Fine of the selected display.
4) Position
   - Adjusts Position of the selected display.
5) Auto Adjustment
   - Self-Adjust to the incoming PC signal.

• **Settings Control is available only for the displays for which the power status is ON.**

Multiple Display Control (MDC)

9. Settings Control – Image Lock 2

1. Click Settings of the main icons and the Settings Control screen appears.



▶ Info Grid shows some basic information necessary to Settings Control.

1) Image Lock 2
   - Available only for VIDEO 1, VIDEO 2.

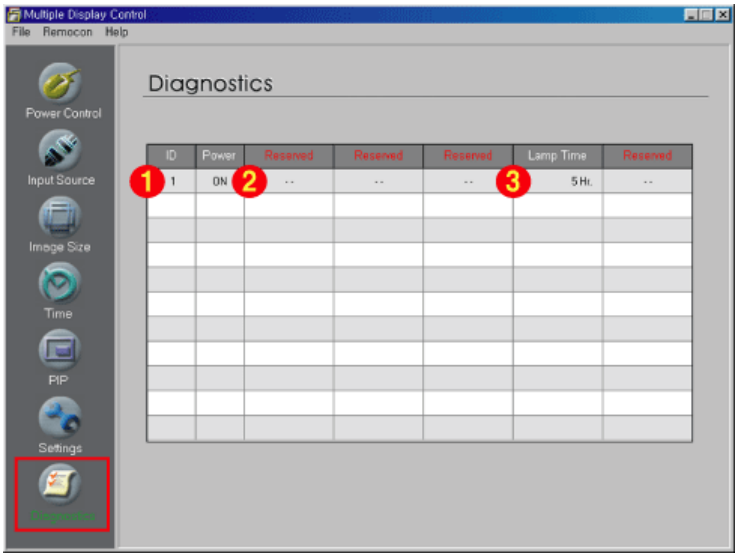
2) Zoom
   - Magnifies the size of the picture on screen.

3) Panning
   - Moves the position of the magnified image on the screen either vertically or horizontally.

• **Settings Control is available only for the displays for which the power status is ON.**

10. Diagnostics

1. Click Diagnostics of the main icons and the Settings Control screen appears.



1) SET ID
   - Shows the ID of the currently connected display.

2) Power Status
   - Shows the power status of the current display.

3) Lamp Time
   - Shows the LCD Lamp On time of the currently connected display.

Multiple Display Control (MDC)

11. Troubleshooting

1. The display you wish to control does not appear on the Power Control Info Grid
   - Check the connection of RS232C. (Check if it is properly connected to the Com1 port)
   - Check the displays to see if any of the other displays connected have the same ID. If more than one displays have the same ID, those displays are not properly detected by the program due to data conflict.
   - Check if the Display Set ID is a number between 1 and 10. (Adjust using the Display menu)

   Note : A Display Set ID must be a value between 1 and 10. If the value is out of the range, the MDC system cannot control the display.

2. The display you wish to control does not appear on the other Control Info Grids
   - Check to see if the display power is ON. (You can check this in Power Control Info Grid)
   - Check if you can change the input source of the display.

3. The dialogue box appears repeatedly.
   - Check to see if the display you wish to control is selected. ☑

4. Both On Timer and Off Timer have been set but different time is showing.
   - Apply current time to synchronize the display clocks.

5. The remote may not function properly when you turn off the remote Function, disconnect the RS-232C cable, or exit the program in an Irregular manner. Rerun the program and turn the remote function again to Restore normal functions.

6. **<Note>** This program may malfunction due to problems in communication circuits or interference from electronic appliances nearby.

7. If you do need assistance, please call the phone number on the warranty card, the phone number on the Information section or contact your dealer.

12. Settings Value Display In Multiple Display Mode

▸ When there are more than one displays connected, the settings values are displayed as follows.

1. No selection: Displays the Factory Default Value.
2. Selected one display: Fetches and displays the settings value for the selected display.
3. Selected one display (ID1) and add another display (ID3): The program, which was displaying the settings value of ID 1, fetches and displays the value of ID3.
4. Selected all sets using Select All: Returns to the Factory Default Value.

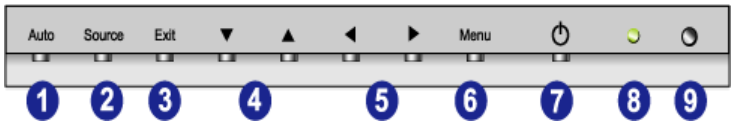
User control buttons

The control button configuration may vary slightly depending on the monitor model.

Monitor Buttons | Remote Control Buttons

| Monitor Buttons |

For more information about screen adjustment, refer to On-Screen Display.



1. **Auto button**

   Press to self-adjust to the incoming PC signal. The values of fine,coarse and position are adjusted automatically.
   To make the automatic adjustment function sharper, execute the 'AUTO' function while the AUTO PATTERN is on. (Press here to view an animation about Auto Adjustment.)

2. **Source button**

   Turns on the indicator to indicate the currently displayed input signal.
   (Press here to view Screen Mode Switching Animation Clips.)

3. **Exit button**

   When screen adjustment menu is on : Exit button exits from the menu screen or closes screen adjustment menu.

4. **Navigate button (Up-Down Button)**

   Moves from one menu item to another vertically or adjusts selected menu values.

5. **Adjust button (Left-Right Button) / Volume button**

   Moves from one menu item to another horizontally or adjusts selected menu values.
   Also adjusts the audio volume.

6. **Menu button**

   When screen adjustment menu is on: Use this button to open the OSD and activate a highlighted menu item.

7. **Power button**

   Use this button to turn the monitor on and off.

8. **Power indicator**

   Lights up when you turn the power on. Refer to Specifications > PowerSaver.

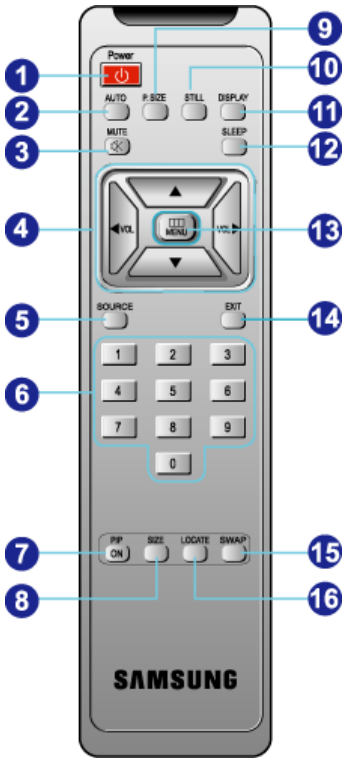
9. **Remote control sensor**

   Aim the remote control towards this spot on the Monitor.

User control buttons

| Remote Control Buttons |

For more information on the screen adjustment functions, refer to On-Screen Display.



1. Power button
2. Auto button
3. Mute button
4. VOL(Volume)and Up/Down buttons
5. Source button
6. Number buttons
7. PIP button
8. PIP Size button
9. P.Size button
10. Still button
11. Display button
12. Sleep button
13. Menu button
14. Exit button
15. Swap button
16. Location button

Up

1. Power button

Use this button to turn the monitor on and off.

2. Auto button

Press to self-adjust to the incoming PC signal. The values of fine,coarse and position are adjusted automatically.
To make the automatic adjustment function sharper, execute the 'AUTO' function while the UTO PATTERN is on. (Press here to view an animation about Auto Adjustment.)

3. Mute button Up

Pauses (mutes) the audio output temporarily. The audio resumes if Mute or Volume button is pressed in the Mute mode.

4. VOL(Volume)and Up/Down buttons Up

Press to increase or decrease the volume. (Also used to make selections on the on-screen menus.)

5. Source button Up

Press to display all of the available video sources.

6. Number buttons Up

In the MDC program, press the numbers to set an ID.

7. PIP button Up

Every time you push the button, the PIP window's signal source changes.

8. PIP Size button

User control buttons

8. **PIP Size button** Up

   Press to make the PIP window PIP 1, PIP 2, Double Screen 1, Double Screen 2.

9. **P.Size button** Up

   Press to change the Screen size.

10. **Still button** Up

    Press the button once to freeze the screen. Press it again to unfreeze.

11. **Display button** Up

    Displays the resolution, frequency and input signal settings in the center of the screen.

12. **Sleep button** Up

    Automatically shuts off the unit at a preset time.

13. **Menu button** Up

    When screen adjustment menu is off: Use this button to open the OSD and activate a highlighted menu item.

14. **Exit button** Up

    On the User Controls screen, press to return to the previous menu screen or to exit the current screen. Makes the PIP window disappear when selected in PIP mode.

15. **Swap button** Up

    Switches the main screen to PIP and vice versa.

16. **Location button** Up

    Moves the position of the PIP window on the screen.

OSD Functions

Characters and icons become highlighted in blue during adjustment for each menu.

PC Control | Video Control | Audio Control | Function Control

1. PC Control

For detailed information on Screen Adjustment in the PC mode, refer to PC mode Screen Adjustment Animation Clips.

	Brightness Adjust Brightness.
	Contrast Adjust Contrast.
	Color Temperature The tone of color can be changed. The individual color components are also user customizable. **1) Mode 1 :** High Temperature. **2) Mode 2 :** Middle Temperature. **3) Mode 3 :** Low Temperature. **4) User Mode :** User customizable.
	Image PC Screen Settings. **1) Image Lock** Image Lock is used to fine tune and get the best image by removing noises that creates unstable images with jitters and shimmers. If satisfactory results are not obtained using the Fine adjustment, use the Coarse adjustment and then use Fine again. • **Coarse :** Removes noise such as vertical stripes. Coarse adjustment may move the screen image area. You may relocate it to the center using the Horizontal Control menu. • **Fine :** Removes noise such as horizontal stripes. If the noise persists even after Fine tuning, repeat it after adjusting the frequency (clock speed). • **Reset :** Image lock and position parameters are replaced with the factory default values. **2) Image Size** Allows choosing from different image sizes. Varies depending on the resolution or signal ratio. The Expand 1, Expand 2 and 1:1 functions work only in PC RGB. • **Expand 1 :** Performs full screen image expansion. (No change if the resolution is set at maximum) • **Expand 2 :** Performs image expansion while maintaining the vertical/horizontal aspect ratio of the original video resolution. (No change if the resolution is set at maximum) • **1 : 1** Displays the image as created by the signal source. (No change if the resolution is set at maximum.)
	Position This adjusts the screen location horizontally and vertically.

OSD Functions

2. Video Control

For detailed information on Screen Adjustment in the Video mode, refer to Video mode Screen Adjustment Animation Clips.
You can use this function only if your screen mode is Video 1 or Video 2 or Component.

	Brightness Adjust Brightness.
	Contrast Adjusting Contrast.
	Sharpness Use to adjust the difference between the lightest and darkest areas on the display.
	Color Use to adjust the lightness/darkness on the display.
	Tint Use to add the natural tone to the display.
	Reset Picture parameters are replaced with the factory default values.
	Image Size Resizing the screen. • **Expand 1** • **Expand 2** • **1 : 1** • **Panorama** • **Zoom 1** • **Zoom 2**

OSD Functions

3. Audio Control

For detailed information on Screen Adjustment in the Audio mode, refer to Audio mode Screen Adjustment Animation Clips.
Sound Select is available when the PIP is on.

	Bass Emphasize low frequency audio.
	Treble Emphasize high frequency audio.
	Balance Sound balance ==> Allows you to adjust the sound balance between the left and the right speakers. (The ideal setting is 50 for the left speaker and 50 for the right speaker.)
	Virtual Dolby Virtual Dolby Sound On/Off (Virtual Dolby simulates the effect of the Dolby Surround sound system, recreating the movie-theatre or concert-hall- quality sound.)
	Sound Select You can select either Main or Sub when PIP is On.

OSD Functions

4. Function Control

For detailed information on Screen Adjustment in the Function mode, refer to Function mode Screen Adjustment Animation Clips.

ID (MDC Program)
Assigns individual ID to the SET.

1) ID Setup : Assigning distinctive IDs to the SET.
2) ID Input : Use to select the transmitter functions of the individual SET. Only the SET whose ID corresponds to the transmitter setting becomes activated.

PIP
When external A/V devices such as VCR or DVD are connected to the monitor, PIP allows you to watch video from such devices in a small window super-imposed on pc video signal. (On/Off)

1) On / Off

2) Size
Resizing the PIP Screen.
- **PIP 1**
- **PIP 2**
- **Double Screen 1**
- **Double Screen 2**

3) Source
Select the input source for the PIP.

PIP Settings

Main \ Sub		RGB 1	RGB 2	BNC		Video 2	Video 1
				RGB3	Component		
RGB 1		X	X	X	X	O	O
RGB 2		X	X	X	X	O	O
BNC	RGB 3	X	X	X	X	O	O
	Component	X	X	X	X	X	X
Video 2		O	O	O	X	X	X
Video 1		O	O	O	X	X	X

4) Position : Change PIP window position.

Advanced Picture

1) Zoom (Available only for VIDEO 1, VIDEO 2)
- **Zoom :** Magnifies the size of the picture on screen.
- **Pan :** Moves the position of the magnified image on the screen either vertically or horizontally.

2) DNIe (Digital Natural Image engine)
Samsung's New Technology bring you more detailed image with contrast enhancement and white enhancement. New image compensation algorithm gives brighter, cleare, to our customers.
DNIe technology will fit every signals into your eyes.
- **Off :** Switches off the DNIe mode.
- **Medium :** Switches on the DNIe mode.
- **High :** The screen is more clear than in Medium.
- **Demo :** The screen before applying DNIe appears on the right and the screen after applying DNIe appears on the left.

3) Reset

OSD Functions

4. Function Control

For detailed information on Screen Adjustment in the Function mode, refer to Function mode Screen Adjustment Animation Clips.

	Timer • **Clock :** Current Time Setting • **On Time :** Use to set the monitor to turn on automatically at preset time. • **Off Time :** Use to set the monitor to turn off automatically at preset time. • **On Time Source :** Use to control the mode at the time the monitor turns on automatically. • **On Time Volume :** Use to control the volume level at the time the monitor turns on automatically. • **Sleep :** Sleep Function
	BNC Source Select an input source from the BNC connection. **1) RGB 3** **2) Component**
	OSD **1) Language :** You can choose one of 10 languages. **2) Position :** Move the OSD Window to the vertical and horizontal direction. **3) Halftone :** Change the opaqueness of the background of the OSD. **4) Duration :** The number of seconds that the OSD will remain visible before disappearing.
	Information Display current display mode. **Source / Resolution**

Check before calling for service

Check the following items yourself before calling for service. Contact the service center for problems that you cannot solve by yourself.

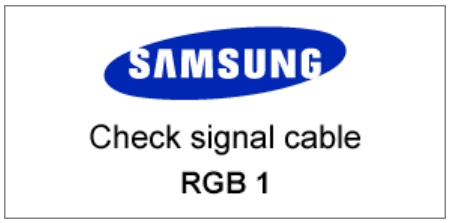
Self-Test Feature Check | Video mode not supported | Down Scaling | Maintenance and Cleaning | Symptoms & Recommended Actions

1. Self-Test Feature Check

Your monitor provides a self test feature that allows you to check whether your monitor is functioning properly.

1. Turn off both your computer and the monitor.
2. Unplug the video cable from the back of the computer.
3. Turn on the monitor.

   The figure shown below ("Check Signal Cable") appears on a black background when the monitor is in its normal working condition though it does not sense any video signal: While in the Self-Test mode, the LED power indicator remains green and the figure moves around on the screen.



   Failure of any of the boxes to appear indicates a problem with your monitor. This box also appears during normal operation if the video cable becomes disconnected or damaged.

4. Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

If your monitor screen remains blank after using the previous procedure, check your video controller and computer system; **your monitor is functioning properly**.

2. Video mode not supported

This indicates the display resolution or refresh rate is not properly set on your computer video card. Reboot the computer in Safe Mode and select "Default" in the "Refresh Rate Unknown" box while setting Adapter for Display Properties.

Contact the computer dealer or manufacturer for information on Safe Mode Booting.

Refer to Specifications > Preset Timing Modes for the resolutions or frequencies that are supported by the monitor.

The screen sometimes remains black even though it does not show the message "Video mode not supported." This indicates the monitor is set for a frequency out of range or the PowerSaver mode is on.

Check before calling for service

3. Down Scaling

Not optimum mode

SXGA, 1280 X 1024 @ 60Hz~75Hz
UXGA, 1600 X 1200 @ 60Hz~75Hz
When the resolution is set to any of the above 2 unsupported modes, the ¡°Not optimum mode¡± message is displayed on the screen for 3 seconds . If this message is diaplayed, the monitor screen is not in its optimum status and the Auto Adjustment function may not work as normal. See the Preset Timing mode to set to the optimum resolution.

The Reduced Blinking Timing Mode of the Preset Timing Mode is properly supported.

4. Maintenance and Cleaning

1. Maintaining the Monitor Case
   Clean with a soft cloth after disconnecting the power cord.

- Do not use benzene, thinner or other flammable substances.
- We recommend a Samsung cleansing agent is used to prevent damage to the screen.

2. Maintaining the Flat Panel Display Screen
   Clean with a soft cloth (cotton flannel) smoothly.

- Never use acetone, benzene or thinner.
  (They may cause flaws or deformation of the screen surface.)
- The user will be required to pay costs and related expenses for repair of damages caused by the user.

5. Symptoms and Recommended Actions

A monitor recreates visual signals received from the PC. Therefore, if there is trouble with the PC or the video card, this can cause the monitor to become blank, have poor coloring, noise, Video mode not supported, etc. In this case, first check the source of the problem, and then contact a service center or your dealer.

1. Check if the power cord and the cable are properly connected to the computer.
2. Check if the computer beeps more than 3 times when booting.
   (If it does, request an after-service for the main board of the computer.)
3. If you installed a new video card or if you assembled the PC, check if you installed the adapter (video) driver and the monitor driver.
4. Check if the scanning ratio of the video screen is set at 75Hz.
   (Do not exceed 60Hz when using the maximum resolution.)
5. If you have problems in installing the adapter (video) driver, boot the computer in Safe Mode, remove the Display Adapter at the "**Control Panel**, **System**, **Device Administrator**" and then reboot the computer to reinstall the adapter (video) driver.

Problems and Solutions

The following table lists possible problems and their solutions. Before calling for service, check the information in this section to see if you can remedy any problems yourself. If you do need assistance, please call the phone number on the warranty card, the phone number on the Information section or contact your dealer.

1. Problems related to Installation

Problems related to the monitor installation and their solutions are listed.

Problems	Solutions
The monitor screen flickers.	• Check if the signal cable between the computer and the monitor is securely connected and tightened. (Refer to Connecting to a Computer)

2. Problems related to Screen

Problems related to the monitor screen and their solutions are listed.

Problems	Solutions
Screen is blank and power indicator is off	• Ensure that the power cord is firmly connected and the LCD monitor is on. (Refer to the Connecting Your Monitor)
"Check Signal Cable" message	• Ensure that the signal cable is firmly connected to the PC or video sources. (Refer to the Connecting Your Monitor) • Ensure that the PC or video sources are turned on.
"Video mode not supported" message	• Check the maximum resolution and the frequency of the video adaptor. • Compare these values with the data in the Preset Timing Modes Chart.
Picture rolls vertically.	• Check if the signal cable is securely connected. Connect it again securely.(Refer to Connecting to a Computer)
Image is not clear. Picture is blurred.	• Run Frequency Coarse and Fine tuning. • Turn on again after removing all accessories (video extension cable, etc.) • Set resolution and frequency to the recommended ranges. (1280 x 768 @ 60Hz)
The image is too light or too dark	• Adjust the Brightness and Contrast (Refer to the Brightness, Contrast)
Screen color is inconsistent.	• Adjust color using Mode under OSD Color Adjustment menu.
Color image is distorted with dark shadows.	
White color is poor.	
Screen is blank and power indicator light is steady green or blinks every 0.5 or 1 seconds	• The monitor is using its power management system. • Move the computer's mouse or press a key on the keyboard

Problems and Solutions

3. Problems related to Audio

Problems related to audio signals and their solutions are listed below.

Problems	Solutions
No sound	• Ensure that the audio cable is firmly connected to both the audio-in port on your monitor and the audio-out port on your sound card. (Refer to the Connecting Your Monitor) • Check the volume level.
Sound level is too low.	• Check the volume level. • If the volume is still too low after turning the control to its maximum, check the volume control on the computer sound card or software program.
Sound is too high pitched or too low pitched	• Adjust the Treble and Bass to appropriate level.

4. Problems related to Remote Control

Problems related to the remote control and their solutions are listed.

Problems	Items to check
The remote control buttons do not respond.	• Check the battery polarities (+/-). • Check if the batteries have been exhausted. • Check if the power is on. • Check if the power cord is securely connected. • Check if a special fluorescent or neon lamp is on in the vicinity.

Q & A

Frequently asked questions are summarized here for your reference.

Question	Answer
How can I change the frequency?	Frequency can be changed by reconfiguring the video card. Note that video card support can vary, depending on the version of the driver used. (Refer to the computer or the video card manual for details.)
How can I adjust the resolution?	Windows XP: Reset resolution by clicking Control Panel → Appearance & Theme → Display → Settings. Windows ME/2000: Set the resolution at the Control Panel → Display → Settings. * Contact the video card manufacturer for details.
How can I set the Power Saving function?	Windows XP: Reset Power Saving parameters by clicking Control Panel → Appearance & Theme → Display → Screen Saver or in the computer BIOS SETUP. (Refer to Windows/Computer Manual) Windows ME/2000: Set the function at BIOS-SETUP of the computer or the screen saver. (Refer to Windows/Computer Manual).
How can I clean the outer case/LCD Panel?	Disconnect the power cord and then clean the monitor with a soft cloth, using either a cleaning solution or plain water. Do not leave any remains of the detergent nor scratch the case. Do not allow any water to go inside the monitor.

General Specifications

SyncMaster 403T

Design and specifications are subject to change without prior notice.

General	
Model Name	SyncMaster 403T
LCD Panel	
Size	40.02 inch (Diagonal)
Display area	871.68 (H) x 523.008 (V)
Pixel Pitch	0.681 (H) x 0.681 (V)
Type	a-si TFT active matrix
Synchronization	
Horizontal	30 ~ 70 kHz
Vertical	50 ~ 85 Hz
Display Color	
16,777,216 Colors	
Resolution	
Optimum resolution	1280 x 768 @ 60Hz
Maximum resolution	1280 x 768 @ 60Hz
Input Signal	
Sync.	Separate: TTL, P. or N.
	Composite: TTL, P. or N.
Video signal	0.7 Vp-p @ 75 ohm
Video	
Color system	NTSC, PAL, SECAM
Video format	CVBS, S-VHS, RGB, Component
Maximum Pixel Clock	
100 MHz	
Power Supply	
AC 90 ~ 264 V(50/60 Hz)	
Power Consumption	
230W (Maximum)	
Power Saving	
Less than 20W	
Dimensions (WxDxH)	
Without Stand	974 x 100 x 613 mm
Weight	
Monitor body	26 kg
Environmental considerations	
Operating	Temperature : 50°F ~ 104°F(10°C ~ 40°C) Humidity : 10% ~ 80%, non-condensing
Storage	Temperature : -13°F ~113°F (-25°C ~ 45°C) Humidity : 5% ~ 95%, non-condensing
Audio Characteristics	
Audio Input 1	RCA Jack Red(R) White(L), 0.5Vrms (-9dB)

General Specifications

Audio Input 2	RCA Jack Red(R) White(L), 0.5Vrms (-9dB)
PC Audio Input	3.5ØStereo Jack, 0.5Vrms (-9dB)
Frequency	RF: 80Hz ~ 15kHz (at -3dB)
Response	A/V: 80Hz ~ 20kHz (at -3dB)

Plug and Play Capability

This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.

Dot Acceptable

TFT LCD panel manufactured by using advanced semiconductor technology with precision of 99.999% above is used for this product. But the pixels of RED, GREEN, BLUE and WHITE color seem to be bright sometimes or some of black pixels could be seen. This is not from bad quality and you can use it without uneasiness.

The number of TFT LCD pixels : 2,949,120

General Specifications

SyncMaster 323T

Design and specifications are subject to change without prior notice.

General	
Model Name	SyncMaster 323T
LCD Panel	
Size	32.0 inch (Diagonal)
Display area	687.36 (H) x 412.42 (V)
Pixel Pitch	0.537 (H) x 0.537 (V)
Type	a-si TFT active matrix
Synchronization	
Horizontal	30 ~ 70 kHz
Vertical	50 ~ 85 Hz
Display Color	
16,777,216 Colors	
Resolution	
Optimum resolution	1280 x 768 @ 60Hz
Maximum resolution	1280 x 768 @ 60Hz
Input Signal	
Sync.	Separate: TTL, P. or N.
	Composite: TTL, P. or N.
Video signal	0.7 Vp-p @ 75 ohm
Video	
Color system	NTSC, PAL, SECAM
Video format	CVBS, S-VHS, RGB, Component
Maximum Pixel Clock	
100 MHz	
Power Supply	
AC 90 ~ 264 V(50/60 Hz)	
Power Consumption	
170W (Maximum)	
Power Saving	
Less than 5W	
Dimensions (WxDxH)	
Without Stand	787 x 100 x 500 mm
Weight	
Monitor body	18.2 kg
Environmental considerations	
Operating	Temperature : 50°F ~ 104°F(10°C ~ 40°C) Humidity : 10% ~ 80%, non-condensing
Storage	Temperature : -4°F ~113°F (-20°C ~ 45°C) Humidity : 5% ~ 95%, non-condensing

General Specifications

Audio Characteristics	
Audio Input 1	RCA Jack Red(R) White(L), 0.5Vrms (-9dB)
Audio Input 2	RCA Jack Red(R) White(L), 0.5Vrms (-9dB)
PC Audio Input	3.5ØStereo Jack, 0.5Vrms (-9dB)
Frequency	RF: 80Hz ~ 15kHz (at -3dB)
Response	A/V: 80Hz ~ 20kHz (at -3dB)

Plug and Play Capability

This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.

Dot Acceptable

TFT LCD panel manufactured by using advanced semiconductor technology with precision of 99.999% above is used for this product. But the pixels of RED, GREEN, BLUE and WHITE color seem to be bright sometimes or some of black pixels could be seen. This is not from bad quality and you can use it without uneasiness.

The number of TFT LCD pixels : 2,949,120

PowerSaver

This monitor has a built-in power management system called PowerSaver. This system saves energy by switching your monitor into a low-power mode when it has not been used for a certain amount of time. The monitor automatically returns to normal operation when you move the computer's mouse or press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPMS compliant video card installed in your computer. Use a software utility installed on your computer to set up this feature.

SyncMaster 403T

State	Normal Operation	Power saving mode EPA	Mechanical Power S/W off
Power Indicator	Green	Green, Blinking	Black
Power Consumption	Less than 230W	Less than 20W	Less than 1W

SyncMaster 323T

State	Normal Operation	Power saving mode EPA	Mechanical Power S/W off
Power Indicator	Green	Green, Blinking	Black
Power Consumption	Less than 170W	Less than 5W	Less than 1W

Preset Timing Modes

SyncMaster 403T

If the signal transferred from the computer is the same as the following Preset Timing Modes, the screen will be adjusted automatically. However, if the signal differs, the screen may go blank while the power LED is on. Refer to the video card manual and adjust the screen as follows.

Table 1. Preset Timing Modes

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
MAC, 640 x 480	35.000	66.700	30.240	-/-
MAC, 832 x 624	49.730	75.000	57.284	-/-
VGA, 640 x 350	31.470	70.000	25.175	+/-
VGA, 720 x 400	31.470	70.000	28.322	-/+
VGA, 640 x 480	31.470	59.940	25.175	-/-
VGA, 640 x 480	37.861	72.809	31.500	-/-
VGA, 640 x 480	37.500	75.000	31.500	-/-
VGA, 640 x 480	43.269	85.008	36.000	-/-
WVGA, 848 x 480	29.820	60.000	31.490	+,-/+,-
SVGA, 800 x 600	35.160	56.200	36.000	+,-/+,-
SVGA, 800 x 600	37.880	60.300	40.000	+/+
SVGA, 800 x 600	48.100	72.200	50.000	+/+
SVGA, 800 x 600	46.875	75.000	49.500	+/+
SVGA, 800 x 600	53.674	85.061	56.250	+/+
XGA, 1024 x 768	48.363	60.004	65.000	-/-
XGA, 1024 x 768	56.480	70.000	75.000	-/-
XGA, 1024 x 768	60.023	75.029	78.750	+/+
XGA, 1024 x 768	68.677	84.997	94.500	+/+
WXGA, 1280 x 768	47.700	60.000	80.136	+,-/+,-

Table 2. Reduced Blinking Timing Mode

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
SXGA, 1280 x 1024	63.194	59.957	91.000	+,-

Preset Timing Modes

SyncMaster 323T

If the signal transferred from the computer is the same as the following Preset Timing Modes, the screen will be adjusted automatically. However, if the signal differs, the screen may go blank while the power LED is on. Refer to the video card manual and adjust the screen as follows.

Table 1. Preset Timing Modes

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
IBM, 640 x 350	31.469	70.086	25.175	+/-
IBM, 640 x 480	31.469	59.940	25.175	-/-
IBM, 720 x 400	31.469	70.087	28.322	-/+
MAC, 640 x 480	31.470	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	49.500	+/+
VESA, 640 x 480	37.500	75.000	31.500	-/-
VESA, 640 x 480	37.861	75.809	31.500	-/-
VESA, 640 x 480	43.269	85.008	36.000	-/-
VESA, 800 x 600	35.156	56.250	36.000	+,-/+,-
VESA, 800 x 600	37.879	60.317	40.000	+/+
VESA, 800 x 600	46.875	75.000	49.500	+/+
VESA, 800 x 600	48.077	72.188	50.000	+/+
VESA, 800 x 600	53.674	85.000	56.250	+/+
VESA, 1024 x 768	48.363	60.004	65.000	-/-
VESA, 1024 x 768	56.476	70.069	75.000	-/-
VESA, 1024 x 768	60.023	75.029	78750	+/+
VESA, 1024 x 768	68.677	85.997	94.500	+/+
VESA, 1280 x 768	47.700	60.000	80.136	-/+

Table 2. Reduced Blinking Timing Mode

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
SXGA, 1280 x 1024	63.194	59.957	91.000	+,-

Service Center

- **AUSTRALIA :**
  Samsung Electronics Australia Pty Ltd.
  Customer Response Centre
  7 Parkview Drive, Homebush Bay NSW 2127
  Tel : 1300 362 603
  http://www.samsung.com.au/
- **BRAZIL :**
  Samsung Eletronica da Amazonia Ltda.
  R. Prof. Manoelito de Ornellas, 303, Terro B
  Chacara Sto. Antonio, CEP : 04719-040
  Sao Paulo, SP
  SAC : 0800 124 421
  http://www.samsung.com.br/
- **CANADA :**
  Samsung Electronics Canada Inc.
  7037 Financial Drive
  Mississauga, Ontario L5N 6R3
  Tel. : 1-800-SAMSUNG (1-800-726-7864)
  Fax. : (905) 542-1199
  http://www.samsung.ca/
- **CHILE :**
  SONDA S.A.
  Teatinos 550, Santiago Centro, Santiago, Chile
  Fono: 56-2-5605000 Fax: 56-2-5605353
  56-2-800200211
  http://www.sonda.com/
  http://www.samsung.cl/
- **COLOMBIA :**
  Samsung Electronics Colombia
  Cra 9 No 99A-02 Of. 106
  Bogota, Colombia
  Tel.: 9-800-112-112
  Fax: (571) 618 - 2068
  http://www.samsung-latin.com/
  e-mail : soporte@samsung-latin.com
- **ESPAÑA :**
  Samsung Electronics Comercial Iberica, S.A.
  Ciencies, 55-65 (Poligono Pedrosa) 08908
  Hospitalet de Llobregat (Barcelona)
  Tel. : (93) 261 67 00
  Fax. : (93) 261 67 50
  http://samsung.es/
- **FRANCE :**
  SAMSUNG ELECTRONICS FRANCE Service
  Paris Nord 2
  66 rue des Vanesses
  BP 50116 Villepinte
  95950 Roissy CDG Cedex
  Tel : 08 25 08 65 65
  Fax : 01 48 63 06 38
  http://www.samsungservices.com/
- **GERMANY :**
  TELEPLAN Rhein-Main GmbH
  Feldstr. 16
  64331 Weiterstadt
  T. 06151/957-1306
  F. 06151/957-1732
  * EURO 0.12/Min
  http://www.samsung.de/
- **HUNGARY :**
  Samsung Electronics Magyar Rt.
  1039, Budapest, Lehel u. 15-17.
  Tel: 36 1 453 1100
  Fax: 36 1 453 1101
  http://www.samsung.hu/
- **ITALY :**
  Samsung Electronics Italia S.p.a.
  Via C. Donat Cattin, 5
  20063 Cernusco s/Naviglio (MI)
  Servizio Clienti: 199.153.153
  http://www.samsung-italia.com/
- **MEXICO :**
  SAMSUNG ELECTRONICS MEXICO. S.A. DE C.V.
  Saturno NO.44, Col. Nueva Industrial Vallejo
  Gustavo A.Madero C.P.07700, Mexico D.F. Mexico
  TEL. 52-55-5747-5100
  Fax. 52-55-47 52 02
  RFC: SEM950215S98
  http://www.samsung.com.mx/
- **NETHERLANDS/BELGIUM/LUXEMBOURG :**
  Samsung Electronics Benelux B. V.
  Fleminglaan 12 2289 CP Rijiswijk, NEDERLANDS
  Service and informatielijn ;
  Belgium :0800-95214, http://www.samsung.be/
  Netherlands : 0800-2295214, http://www.samsung.nl/
- **PANAMA :**
  Samsung Electronics Latinoamerica(Z.L.) S.A.
  Calle 50 Edificio Plaza Credicorp, Planta Baja
  Panama
  Tel. : (507) 210-1122, 210-1133
  Tel : 800-3278(FAST)
  http://www.samsung-latin.com/
- **PERU**
  Servicio Integral Samsung
  Av.Argentina 1790 Lima1. Peru
  Tel: 51-1-336-8686
  Fax: 51-1-336-8551
  http://www.samsungperu.com/
- **PORTUGAL :**
  SAMSUNG ELECTRONICA PORTUGUESA S.A.
  Rua Mário Dioniso, Nº2 - 1º Drt. 2795-140 LINDA-A-VELHA
  Tel. 214 148 114/100 Fax. 214 148 133/128
  Free Line 800 220 120
  http://www.samsung.pt/
- **SOUTH AFRICA :**
  Samsung Electronics,5 Libertas Road, Somerset Office Park,
  Bryanston Ext 16. Po Box 70006, Bryanston,2021, South Africa
  Tel : 0027-11-549-1621
  Fax : 0027-11-549-1629
  http://www.samsung.co.za/
- **SWEDEN/DENMARK/NORWAY/FINLAND :**
  Samsung Electronics AB
  Box 713
  S-194 27 UPPLANDS VÄSBY
  SVERIGE
  Besöksadress : Johanneslundsvägen 4
  Samsung support Sverige: 020-46 46 46
  Samsung support Danmark : 8088-4646
  Samsung support Norge: 8001-1800
  Samsung support Finland: 0800-118001
  Tel +46 8 590 966 00
  Fax +46 8 590 966 50
  http://www.samsung.se/
- **THAILAND :**
  HAI SAMSUNG SERVICE CENTER
  MPA COMPLEX BUILDING,1st-2nd Floor
  175 SOI SUEKSA VIDHAYA SATHON SOI 12
  SILOM ROAD ,SILOM,BANGRAK
  BANGKOK 10500
  TEL : 0-2635-2567
  FAX : 0-2635-2556

Service Center

- **UKRAINE :**
  SAMSUNG ELECTRONICS REPRESENTATIVE OFFICE IN UKRAINE
  4 Glybochitska str.
  Kiev, Ukraine
  Tel. 8-044-4906878
  Fax 8-044-4906887
  Toll-free 8-800-502-0000
  http://www.samsung.com.ua/

- **United Kingdom :**
  Samsung Electronics (UK) Ltd.
  Samsung House, 225 Hook Rise South
  Surbiton, Surrey KT6 7LD
  Tel. : (0208) 391 0168
  Fax. : (0208) 397 9949
  < European Service Center & National Service >
  Stafford Park 12 Telford, Shropshire, TF3 3BJ
  Tel. : (0870) 242 0303
  Fax. : (01952) 292 033
  http://samsungservice.co.uk/

- **U.S.A. :**
  Samsung Computer Products Customer Service
  400 Valley Road, Suite 201, Mt. Arlington, NJ 07856
  Tel. : (973)601-6000, 1-800-SAMSUNG (1-800-726-7864)
  Fax. : (973)601-6001
  http://samsungusa.com/monitor/

IMPORTADO POR:	SAMSUNG ELECTRONICS MEXICO. S.A. DE C.V. Saturno NO.44, Col. Nueva Industrial Vallejo Gustavo A.Madero C.P.07700, Mexico D.F. Mexico TEL. 52-55-5747-5100
EXPORTADO POR:	Samsung Electronics CO.,LTD. 416, Mae tan-3dong, Yeongtong-gu, Suwon City, Kyoungki-Do Korea

Terms

- **Sync Signal**

  Sync (Synchronized) Signals refer to the standard signals that are required to display desired colors on the monitor. They are divided into Vertical and Horizontal Sync Signals. These signals display normal color images by the set resolution and frequency.

  Types of Sync Signals

Separate	This is a scheme of transmitting individual vertical sync signals to the monitor.
Composite	This is a scheme of combining vertical sync signals into one composite signal and transmitting it to the monitor. The monitor displays the color signals by separating the composite signal into original color signals.
Sync On Green	This scheme does not use sync signals. Instead, it combines horizontal and vertical sync signals into a Green signal and transmits to the monitor. It is mainly used for workstations.

- **Dot Pitch**

  The image on a monitor is composed of red, green and blue dots. The closer the dots, the higher the resolution. The distance between two dots of the same color is called the 'Dot Pitch'. Unit: mm

- **Vertical Frequency**

  The screen must be redrawn several times per second in order to create and display an image for the user. The frequency of this repetition per second is called Vertical Frequency or Refresh Rate. Unit: Hz

  Example: If the same light repeats itself 60 times per second, this is regarded as 60 Hz. In this case, flickering of the screen can be detected. To avoid this problem, there is a Flicker-free Mode using a vertical frequency over 70 Hz.

- **Horizontal Frequency**

  The time to scan one line connecting the right edge to the left edge of the screen horizontally is called Horizontal Cycle. The inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit: kHz

- **Interlace and Non-Interlace Methods**

  Showing the horizontal lines of the screen from the top to the bottom in order is called the Non-Interlace method while showing odd lines and then even lines in turn is called the Interlace method. The Non-Interlace method is used for the majority of monitors to ensure a clear image. The Interlace method is the same as that used in TVs.

- **Plug & Play**

  This is a function that provides the best quality screen for the user by allowing the computer and the monitor to exchange information automatically. This monitor follows the international standard VESA DDC for the Plug & Play function.

- **Resolution**

  The number of horizontal and vertical dots used to compose the screen image is called 'resolution'. This number shows the accuracy of the display. High resolution is good for performing multiple tasks as more image information can be shown on the screen.

  Example: If the resolution is 1024 X 768, this means the screen is composed of 1024 horizontal dots (horizontal resolution) and 768 vertical lines (vertical resolution).

- **Multiple Display Control (MDC)**

  A Multiple Display Control (MDC) is an application allowing various displays to be easily and simultaneously operated on a PC. RS-232C, a standard of serial communication, is used for the communication between a PC and a display.

Regulatory

FCC Information | IC Compliance Notice | MPR II Compliance |
European Notice (Europe only) | PCT Notice | VCCI |

FCC Information

User Instructions
The Federal Communications Commission Radio Frequency Interference Statement includes the following warning:

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television receptions, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

User Information
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. If necessary, consult your dealer or an experienced radio/television technician for additional suggestions. You may find the booklet called How to Identify and Resolve Radio/TV Interference Problems helpful. This booklet was prepared by the Federal Communications Commission. It is available from the U.S. Government Printing Office, Washington, DC 20402, Stock Number 004-000-00345-4.

The party responsible for product compliance:
SAMSUNG ELECTRONICS CO., LTD
America QA Lab of Samsung
3351 Michelson Drive,
Suite #290, Irvine, CA92612 USA
Tel) 949-975-7310
Fax) 949-922-8301

Warning
User must use shielded signal interface cables to maintain FCC compliance for the product.

Provided with this monitor is a detachable power supply cord with IEC320 style terminations. It may be suitable for connection to any UL Listed personal computer with similar configuration. Before making the connection, make sure the voltage rating of the computer convenience outlet is the same as the monitor and that the ampere rating of the computer convenience outlet is equal to or exceeds the monitor voltage rating.
For 120 Volt applications, use only UL Listed detachable power cord with NEMA configuration 5-15P type (parallel blades) plug cap. For 240 Volt applications use only UL Listed Detachable power supply cord with NEMA configuration 6-15P type (tandem blades) plug cap.

IC Compliance Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations of ICES-003.

Cet appareil Numérique de classe B respecte toutes les exigences du Règlemont NMB-03 sur les équipements produisant des interférences au Canada.

Regulatory

MPR II Compliance

This monitor complies with SWEDAC(MPR II) recommendations for reduced electric and magnetic fields.

European Notice (Europe only)

Products with the CE marking comply with the EMC Directive(89/336/EEC), (92/31/EEC), (93/68/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European Norms:

- EN55022:1998+A1:2000 - Radio Frequency Interference
- EN55024:1998 - Electromagnetic Immunity of Information Technology Equipment
- EN61000-3-2:1995+A1/A2:1998 - Power Line Harmonics
- EN61000-3-3:1995 - Voltage Fluctuations

PCT Notice

VCCI

This is a Class B product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

Natural Color

- **Natural Color Software Program**

One of the recent problems in using a computer is that the color of the images printed out by a printer or other images scanned by a scanner or a digital camera are not the same as those shown on the monitor.

The Natural Color S/W is the very solution for this problem. It is a color administration system developed by Samsung Electronics in association with Korea Electronics & Telecommunications Research Institute (ETRI). This system is available only for Samsung monitors and makes the color of the images on the monitor the same as the printed or scanned images.
For more information, refer to Help (F1) in the software program.

How to install the Natural Color software
Insert the CD included with the Samsung monitor into the CD-ROM Drive. Then, the initial screen of the program installation will be executed. Click Natural Color on the initial screen to install the Natural Color software. To install the program manually, insert the CD included with the Samsung monitor into the CD-ROM Drive, click the [Start] button of Windows and then select [Execute].
Enter D:\color\eng\setup.exe and then press the <Entrer> key.
(If the drive where the CD is inserted is not D:\, enter the applicable drive.)

How to delete the Natural Color software program
Select [Setting]/[Control Panel] on the [Start] menu and then double-click [Add/Delete a program].
Select Natural Color from the list and then click the [Add/Delete] button.

For Better Display

- **For Better Display**

1. Adjust computer resolution and screen injection rate (refresh rate) in control panel of computer as described below to enjoy the best quality of picture. You can have an uneven quality of picture in the screen if the best quality of picture is not provided in TFT-LCD.
    - Resolution: 1280 x 768
    - Vertical frequency (refresh rate): 60 Hz
2. TFT LCD panel manufactured by using advanced semiconductor technology with precision of 99.999% above is used for this product. But the pixels of RED, GREEN, BLUE and WHITE color seem to be bright sometimes or some of black pixels could be seen. This is not from bad quality and you can use it without uneasiness.
    - For example, the number of TFT LCD pixels that is contained in this product are 2,949,120.
3. When you clean the monitor and the panel outside, please apply the recommended small amount of cleaner by using soft and dry cloth and polish it. Let LCD area not to be forced but to be scrubbed out softly. If excessive force is applied, you can have a stain on it.
4. If you are not satisfied with the quality of picture, you can get better quality of picture by executing "auto adjustment function" in display screen that is appeared as window termination button is pressed. If there's still noise after automatic adjustment, use FINE/COARSE adjustment function.
5. If you view a fixed screen for an extended period of time, residual image or blurriness may appear. Change the mode to energy save or set a screensaver to moving picture when you need to be away from the monitor for an extended period of time.

Authority

Information in this document is subject to change without notice.
© 2003 Samsung Electronics Co., Ltd. All rights reserved.

Reproduction in any manner whatsoever without the written permission of Samsung Electronics Co., Ltd. is strictly forbidden.

Samsung Electronics Co., Ltd. shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

Samsung is the registered trademark of Samsung Electronics Co., Ltd.; *Microsoft*, *Windows* and *Windows NT* are registered trademarks of Microsoft Corporation; *VESA*, *DPMS* and *DDC* are registered trademarks of Video Electronics Standard Association; All other product names mentioned herein may be the trademarks or registered trademarks of their respective owners.

DOLBY DIGITAL Manufatured under license from Dolby Laboratories " Dolby" and the double-D symbol are trademarks of Dolby Laboratories.